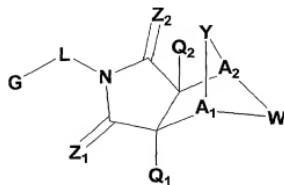


Claims

We claim:

1. A compound of the following formula:

5



(Ia)

wherein the symbols have the following meanings and are, for each occurrence,

10 independently selected:

G is an aryl or heterocyclo group, where said group is mono- or polycyclic, and which

is optionally substituted at one or more positions;

Z₁ is O, S, NH, or NR⁶;

Z₂ is O, S, NH, or NR⁶;

15 A₁ is CR⁷ or N;

A₂ is CR⁷ or N;

Y is J-J' where J is (CR⁷R⁷)_n and n = 0-3, J' is a bond or O, S, S=O, SO₂, NH,

NR⁷, CR⁷R⁷, R²P=O, R²P=S, R²OP=O, R²NHP=O, OP=OOR², OP=ONHR²,

OSO₂, NHNH, NHNR⁶, NR⁶NH, N=N, cycloalkyl or substituted cycloalkyl,

20 cycloalkenyl or substituted cycloalkenyl, or heterocyclo or substituted

heterocyclo, and J' is (CR⁷R⁷)_n and n = 0-3, where Y is not a bond; and

W' is CR⁷R⁷—CR⁷R⁷, CR⁷R⁷—C=O, NR⁹—CR⁷R⁷, N=CR⁸, N=N, NR⁹—NR⁹,

cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl,

heterocyclo or substituted heterocyclo, or aryl or substituted aryl, wherein,

25 when W' is not NR⁹—CR⁷R⁷, N=CR⁸, N=N, NR⁹—NR⁹, or heterocyclo or

substituted heterocyclo, then J' must be O, S, S=O, SO_2 , NH, NR^7 , $\text{OP}=\text{OOR}^2$, $\text{OP}=\text{ONHR}^2$, OSO_2 , NHNH , NHNR^6 , NR^6NH , or N=N; or alternatively, Y' is $\text{NR}^7\text{-CR}^7\text{R}^7$ and W' is $\text{CR}^8=\text{CR}^8$; or, alternatively, Y' is $\text{CR}^7\text{R}^7\text{-C=O}$ and W' is $\text{NR}^8\text{-CR}^7\text{R}^7$;

5 Q_1 is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo or substituted heterocyclo, halo, CN, $\text{R}^1\text{OC=O}$, $\text{R}^4\text{C=O}$, $\text{R}^5\text{R}^6\text{NC=O}$, HOCR^7R^7 , nitro, R^1OCH_2 , R^1O , NH₂, C=OSR¹, SO₂R¹ or NR⁴R⁵;

10 Q_2 is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo or substituted heterocyclo, halo, CN, $\text{R}^1\text{OC=O}$, $\text{R}^4\text{C=O}$, $\text{R}^5\text{R}^6\text{NC=O}$, HOCR^7R^7 , nitro, R^1OCH_2 , R^1O , NH₂, C=OSR¹, SO₂R¹ or NR⁴R⁵;

15 L is a bond, $(\text{CR}^7\text{R}^7)_n$, NH, NR⁵ or NR⁵(CR⁷R⁷)_n, where n = 0-3; R¹ and R^{1'} are each independently H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

20 R² is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

25 R³ and R^{3'} are each independently H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

30 substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl or substituted cycloalkenylalkyl,

cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, hydroxylamine, hydroxamide, alkoxy or substituted alkoxy, amino, NR¹R², thiol, alkylthio or substituted alkylthio;

5 R⁴ is H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, R¹C=O, R¹NHC=O, SO₂OR¹, or SO₂NR¹R¹;

10 R⁵ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, R¹C=O, R¹NHC=O, SO₂R¹, SO₂OR¹, or SO₂NR¹R¹;

15 R⁶ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, CN, OH, OR¹, R¹C=O, R¹NHC=O, SO₂R¹, SO₂OR¹, or SO₂NR¹R¹;

20 R⁷ and R^{7'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, OR¹, nitro, hydroxylamine, hydroxamide, amino, NHR⁴, NR²R⁵, NOR¹, thiol, alkylthio or substituted alkylthio, R¹C=O, R¹OC=O, R¹NHC=O, SO₂R¹, SO₁R¹, PO₃R¹R^{1'}, R¹R^{1'}NC=O, C=OSR¹, SO₂R¹, SO₂OR¹, or SO₂NR¹R^{1'}, or, wherein

A₁ or A₂ contains a group R⁷ and W contains a group R⁷, said R⁷ groups of A₁ or A₂ and W together form a heterocyclic ring;

R⁸ and R⁹ are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted

5 cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, nitro, halo, CN, OR¹, amino, NHR⁴, NR²R⁵, NOR¹, alkylthio or substituted alkylthio, C=OSR¹, R'OC=O, R'C=O,
10 R'NHC=O, R'R'NC=O, SO₂OR¹, S=OR¹, SO₂R¹, PO₃R'R', or SO₂NR'R';
and

R⁹ and R⁹ are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted

15 cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, CN, OH, OR¹, R'C=O,
R'OC=O, R'NHC=O, SO₂R¹, SO₂OR¹, or SO₂NR'R';

with the provisos that:

20 (1) when Y' is -O-, Q₁ and Q₂ are hydrogen, Z₁ and Z₂ are O, W' is -CH₂-CH₂-, and A₁ and A₂ are CH, then G-L is not phenyl, monosubstituted phenyl or phenyl which is substituted with two or more of the following groups: methoxy, halo, NO₂, methyl, CH₃-S-, OH, CO₂H, trifluoromethyl, -C(O)-C₆H₅, NH₂, 4-7-epoxy, hexahydro-1H-isoindole-1,3(2H)dione, or -C(O)-CH₃;
25 (2) when Y' is -O-, Q₁ and Q₂ are hydrogen, Z₁ and Z₂ are O, W' is CH₂-CH₂, and one of A₁ and A₂ is CH and the other is CR⁷, then G-L is not unsubstituted phenyl;
 (3) when Y' is -O-, Q₁ and Q₂ are hydrogen, Z₁ and Z₂ are O, W' is CH₂-CH₂, and one of A₁ and A₂ is CH and the other is C-CH₃, then G-L is not phenyl substituted with chloro and/or methyl;

(4) when Y' is -O- or -S-, Q₁ and Q₂ are hydrogen, Z₁ and Z₂ are O, W' is CH₂-CH₂, and one of A₁ and A₂ is CH and the other is CH or C-alkyl, then G-L is not N-substituted piperazine-alkyl- or N-substituted imidazolidine-alkyl-;

5 (5) when Y' is -O-; Q₁ and Q₂ are hydrogen, Z₁ and Z₂ are O, W' is CH₂-CH₂, and A₁ and A₂ are CH, then G-L is not oxazole or triazole;

(6) when Y' is -O-; Q₁ and Q₂ are hydrogen or methyl, Z₁ and Z₂ are O, W' is CH₂-CH₂, and A₁ and A₂ are CH or C-CH₃, then G-L is not thiazole or substituted thiazole;

10 (7) when Y' contains a group J' selected from S, S=O, SO₂, NH, NR⁷, R²P=O, R²P=S, R²OP=O, R²NHP=O, OP=OOR², OP=ONHR², OSO₂, NHNH, NHR⁶, NR⁶NH or N=N, W' is CR⁷R⁷- CR⁷R⁷, and Z₁ and Z₂ are O, then G-L is not unsubstituted phenyl;

(8) when Y' is NR⁷, W' is unsubstituted or substituted phenyl, and Q₁ and Q₂ are hydrogen, then Z₁ and Z₂ are not O;

15 (9) when Y' is —O—, Q₁ and Q₂ are hydrogen, Z₁ and Z₂ are O, W' is dihydroisoazole bearing an optionally substituted phenyl group, and A₁ and A₂ are CH, then G-L is not unsubstituted phenyl or dichlorophenyl;

(10) when Y' is O, Q₁ and Q₂ are hydrogen, Z₁ and Z₂ are O, W' is ethylene oxide, and A₁ and A₂ are CH, then G-L is not methylphenyl or chlorophenyl;

20 (11) when Y' is NR⁷-CR⁷R⁷, W' is CR⁸=CR⁸, Q₁ and Q₂ are hydrogen, A₁ and A₂ are CH, C-CH₃, C-CH₂-C₆H₅ or C-CH₂-CH₃, and Z₁ and Z₂ are O, then G-L is not unsubstituted phenyl, monosubstituted phenyl or methylpyridinyl;

(12) when Y' is CR⁷R⁷-C=O, , W' is NR⁹-CR⁷R⁷, Q₁ and Q₂ are hydrogen, A₁ and A₂ are CH, and Z₁ and Z₂ are O, then G-L is not unsubstituted phenyl;

25 (13) when Y' is CHR⁷-NR⁷ where R⁷ is unsubstituted phenyl, methoxy or ethoxy and R⁷ is unsubstituted phenyl, methyl or -C(O)-C₆H₅, W' is dimethoxyphenylene or unsubstituted phenylene, Z₁ and Z₂ are O, Q₁ and Q₂ are hydrogen, A₁ and A₂ are CH, C-CN, C-C(O)-C₆H₅, or -C(O)-dimethoxyphenyl, then G-L is not unsubstituted phenyl;

(14) the compound of formula Ia is not 6,10-epithio-4H-thieno-[3',4':5,6]cyclooct[1,2-f]isoindole-7,9(5H,8H)dione, 8-(3,5-dichlorophenyl)-

6,6a,9a,10,11,12,-hexahydro-1,3,6,10-tetramethyl-2,2,13-trioxide,
(6R,6aR,9aS,10S);
(15) when Y' is O, W' is $-\text{CH}_2\text{CH}_2-$, Q₁ and Q₂ are methyl, Z₁ and Z₂ are O, and A₁ and A₂ are CH, then G-L is not unsubstituted phenyl, phenyl
5 substituted with methoxy, phenyl-alkyl-, or morpholine-alkyl, nor is the compound bridged to itself through a group L which is alkylene to form a bis compound;
(16) when Y' is $-\text{O}-$, Q₁ and Q₂ are hydrogen, Z₁ and Z₂ are O, W' is CR^7R^7- CR⁷R⁷, and A₁ and A₂ are CH, then G-L is not an unsubstituted phenyl group;
10 and
(17) when Y' is $-\text{O}-$, Q₁ and Q₂ are hydrogen, Z₁ and Z₂ are O, W' is cyclopentyl, cyclohexyl, 3-phenyl-2-isoxazoline or CR⁷R⁷-CR⁷R⁷ where R⁷ and R⁷' are each independently defined as Cl, Br, H and 4-butyrolactone and R⁷ and R⁷' are not all simultaneously H, and A₁ and A₂ are CH, then G-L is not
15 an unsubstituted naphthyl ring or a monosubstituted phenyl ring, where said substituent is methoxy, Br, Cl, NO₂, methyl, ethyl, CH₂-phenyl, S-phenyl, or O-phenyl.

2. The compound of Claim 1 wherein
20 G is an aryl or heterocyclo group, where said group is mono- or polycyclic, and which is optionally substituted at one or more positions;
Z₁ is O, S, NH, or NR⁶;
Z₂ is O, S, NH, or NR⁶;
A₁ is CR⁷ or N;
25 A₂ is CR⁷ or N;
Y' is J-J'-J" where J is (CR⁷R⁷)_n and n = 0-3, J' is a bond or O, S, S=O, SO₂, NH, NR⁷, CR⁷R⁷, R²P=O, R²P=S, R²OP=O, R²NHP=O, OP=OOR², OP=ONHR², OSO₂, NHNH, NHNR⁶, NR⁶NH, N=N, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, or heterocyclo or substituted
30 heterocyclo, and J" is (CR⁷R⁷)_n and n = 0-3, where Y' is not a bond;

W' is $\text{CR}^7\text{R}'^7$ — $\text{CR}^7\text{R}'^7$, $\text{CR}^7\text{R}'^7$ — $\text{C}=\text{O}$, NR^9 — $\text{CR}^7\text{R}'^7$, $\text{N}=\text{CR}^8$, $\text{N}=\text{N}$, NR^9 — NR'^9 ,

cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl,

heterocyclo or substituted heterocyclo, or aryl or substituted aryl, wherein,

when W' is not NR^9 — $\text{CR}^7\text{R}'^7$, $\text{N}=\text{CR}^8$, $\text{N}=\text{N}$, NR^9 — NR'^9 , or heterocyclo or

5 substituted heterocyclo, then J' must be O, S, $\text{S}=\text{O}$, SO_2 , NH, NR^7 , $\text{OP}=\text{OOR}^2$,
 $\text{OP}=\text{ONHR}^2$, OSO_2 , NHNH , NHNH^6 , NR^6NH , or $\text{N}=\text{N}$;

Q_1 is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or

substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl,

heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted

10 arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo
or substituted heterocyclo, halo, CN, $\text{R}^4\text{OC}=\text{O}$, $\text{R}^4\text{C}=\text{O}$, $\text{R}^5\text{R}^6\text{NC}=\text{O}$,

$\text{HOCR}^7\text{R}'^7$, nitro, R^1OCH_2 , R^1O , NH₂, or NR^4R^5 ;

Q_2 is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or
substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl,

15 heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted
arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo
or substituted heterocyclo, halo, CN, $\text{R}^4\text{OC}=\text{O}$, $\text{R}^4\text{C}=\text{O}$, $\text{R}^5\text{R}^6\text{NC}=\text{O}$,
 $\text{HOCR}^7\text{R}'^7$, nitro, R^1OCH_2 , R^1O , NH₂, or NR^4R^5 ;

L is a bond, $(\text{CR}^7\text{R}'^7)n$, NH, NR^5 or $\text{NR}^5(\text{CR}^7\text{R}'^7)n$, where n = 0-3;

20 R^1 and R'^1 are each independently H, alkyl or substituted alkyl, cycloalkyl or
substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo
or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl,
cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or
substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted
arylalkyl;

25 R^2 is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or
substituted cycloalkenyl, heterocyclo or substituted heterocyclo,
cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted
cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or
substituted aryl, arylalkyl or substituted arylalkyl;

30

R³ and R^{3'} are each independently H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, heterocycloalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl, heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, hydroxylamine, hydroxamide, alkoxy or substituted alkoxy, amino, NR¹R², thiol, alkylthio or substituted alkylthio;

R⁴ is H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo,

cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, R¹C=O, R¹NHC=O, or SO₂NR¹R^{1'};

R⁵ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo,

cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, R¹C=O, R¹NHC=O, SO₂R¹, or SO₂NR¹R^{1'};

R⁶ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, CN, OH, OR¹, R¹C=O,

R¹NHC=O, SO₂R¹, or SO₂NR¹R^{1'};

R⁷ and R^{7'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, OR¹, R¹C=O,

cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, OR¹, nitro,

hydroxylamine, hydroxylamide, amino, NHR^4 , NR^2R^5 , NOR^1 , thiol, alkylthio or substituted alkylthio, $\text{R}^1\text{C}=\text{O}$, $\text{R}^1\text{OC}=\text{O}$, $\text{R}^1\text{NHC}=\text{O}$, SOR^1 , $\text{PO}_3\text{R}^1\text{R}^1$, $\text{R}^1\text{R}^1\text{NC}=\text{O}$, $\text{C}=\text{OSR}^1$, SO_2R^1 , or $\text{SO}_2\text{NR}^1\text{R}^1$;

R^8 and $\text{R}^{8'}$ are each independently H, alkyl or substituted alkyl, alkenyl or substituted

5 alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, nitro, halo, CN, OR^1 , amino, NHR^4 , NR^2R^5 ,

10 NOR^1 , alkylthio or substituted alkylthio, $\text{C}=\text{OSR}^1$, $\text{R}^1\text{OC}=\text{O}$, $\text{R}^1\text{C}=\text{O}$, $\text{R}^1\text{NHC}=\text{O}$, $\text{R}^1\text{R}^1\text{NC}=\text{O}$, $\text{S}=\text{OR}^1$, SO_2R^1 , $\text{PO}_3\text{R}^1\text{R}^1$, or $\text{SO}_2\text{NR}^1\text{R}^1$;

R^9 and $\text{R}^{9'}$ are each independently H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, heterocycloalkyl or substituted heterocycloalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, CN, OH, OR^1 , $\text{R}^1\text{C}=\text{O}$, $\text{R}^1\text{OC}=\text{O}$, $\text{R}^1\text{NHC}=\text{O}$, or $\text{SO}_2\text{NR}^1\text{R}^1$;

15 with the provisos (1) to (17) of said formula Ia, and further where (i) when Y' is $-\text{O}-$ and W' is CR^7R^7 — CR^7R^7 , A_1 and A_2 are not simultaneously CH ; and (ii)

20 when L is a bond, G is not an unsubstituted phenyl group.

3. The compound of Claim 1, wherein

G is an aryl or heterocyclo group, where said group is mono- or polycyclic, and

25 which is optionally substituted at one or more positions;

Z_1 is O;

Z_2 is O;

A_1 is CR^7 ;

A_2 is CR^7 ;

Y' is J-J'-J'' where J is $(CR^7R^7)^n$ and n = 0-3, J' is a bond or O, S, S=O, SO₂, NH, NR⁷, CR⁷R⁷, R²P=O, R²P=S, R²OP=O, R²NHP=O, OP=OOR², OP=ONHR², OSO₂, NHNH, NHNR⁶, NR⁶NH, N=N, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, or heterocyclo or substituted

5 heterocyclo, and J'' is $(CR^7R^7)^n$ and n = 0-3, where Y' is not a bond;

W' is CR⁷R⁷—CR⁷R⁷, CR⁷R⁷—C=O, NR⁹—CR⁷R⁷, N=CR⁸, N=N, NR⁹—NR⁹, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, or aryl or substituted aryl, wherein, when W' is not NR⁹—CR⁷R⁷, N=CR⁸, N=N, NR⁹—NR⁹, or heterocyclo or substituted heterocyclo, then J' must be O, S, S=O, SO₂, NH, NR⁷, OP=OOR², OP=ONHR², OSO₂, NHNH, NHNR⁶, NR⁶NH, or N=N;

10 Q₁ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl,

15 heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo or substituted heterocyclo, halo, CN, R⁴C=O, R⁵R⁶NC=O, HOCR⁷R⁷, nitro, R¹OCH₂, R¹O, NH₂, or NR⁴R⁵;

Q₂ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl,

20 heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo or substituted heterocyclo, halo, CN, R⁴C=O, R⁵R⁶NC=O, HOCR⁷R⁷, nitro, R¹OCH₂, R¹O, NH₂, or NR⁴R⁵;

L is a bond;

25 R¹ and R^{1'} are each independently H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

30

R² is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

5 R³ and R^{3'} are each independently H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, alkoxy or substituted alkoxy, amino, NR¹R², alkylthio or substituted alkylthio;

10 R⁴ is H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, R¹C=O, R¹NHC=O, or SO₂NR¹R^{1'};

15 R⁵ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, R¹C=O, R¹NHC=O, SO₂R¹, or SO₂NR¹R^{1'};

20 R⁶ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, CN, OH, OR¹, R¹C=O, or SO₂NR¹R^{1'};

25 R⁷NHC=O, SO₂R¹, or SO₂NR¹R^{1'};

R⁷ and R^{7'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted

5 cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, OR¹, nitro, amino, NHR⁴, NR²R⁵, alkylthio or substituted alkylthio, R¹C=O, R¹NHC=O, SO₂R¹, R¹R^{1'}NC=O, or SO₂NR¹R^{1'};

R⁸ and R^{8'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted

10 alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, nitro, halo, CN, OR¹, amino, NHR⁴, NR²R⁵, 15 alkylthio or substituted alkylthio, R¹C=O, R¹NHC=O, R¹R^{1'}NC=O, SO₂R¹, or SO₂NR¹R^{1'}; and

R⁹ and R^{9'} are each independently H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl,

20 cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, CN, OH, OR¹, R¹C=O, R¹NHC=O, or SO₂NR¹R^{1'};

with the provisos (1) to (17) of said formula Ia, and further where (i) when Y' is -O- and W' is CR⁷R^{7'}—CR⁷R^{7'}, A₁ and A₂ are not simultaneously CH; and (ii) when L is a bond, G is not an unsubstituted phenyl group.

4. A compound selected from the group consisting of:
(3 α ,4 α ,7 α ,7 α)-2-(4-Bromo-3-methylphenyl)tetrahydro-4,7-ethanothiopyrano[3,4-c]pyrrole-1,3,8(2H,4H)-trione (1C);

(3 α ,4 α ,7 α ,7a α)-2-(4-Bromo-3-methylphenyl)tetrahydro-4,7-ethanothiopyrano[3,4-c]pyrrole-1,3,8(2H,4H)-trione 5,5-dioxide (2);
(3 α ,4 β ,7 β ,7a α)-2-(3-Chlorophenyl)hexahydro-4-methyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione (3);

5 (3 α ,4 α ,7 α ,7a α)- and (3 α ,4 β ,7 β ,7a α)-4-[(Acetyloxy)methyl]-3a,4,7,7a-tetrahydro-2-[3-(trifluoromethyl)phenyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione (4i & 4ii, respectively);
(3 α ,4 α ,7 α ,7a α)- and (3 α ,4 β ,7 β ,7a α)-4-[(Acetyloxy)methyl]-Hexahydro-2-[3-(trifluoromethyl)phenyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione (5i & 5ii, 10 respectively);
(3 α ,4 α ,7 α ,7a α)- and (3 α ,4 β ,7 β ,7a α)-3a,4,7,7a-Tetrahydro-5-(hydroxymethyl)-2-[3-(trifluoromethyl)phenyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione (6i & 6ii, respectively);
(3 α ,4 α ,7 α ,7a α)-3a,4,7,7a-Tetrahydro-5-(hydroxymethyl)-4-methyl-2-[3-(trifluoromethyl)phenyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione (7);
15 (3 α ,4 β ,7 β ,7a α)-2-[3,5-Bis(trifluoromethyl)phenyl]hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione (8);
(3 α ,4 α ,7 α ,7a α)-2-(4-Bromophenyl)octahydro-1,3-dioxo-4,7-etheno-5H-pyrrolo[3,4-c]pyridine-5-carboxylic acid phenyl ester (9);
20 (3 α ,4 α ,7 α ,7a α)-2-(4-Bromophenyl)octahydro-1,3-dioxo-4,7-etheno-5H-pyrrolo[3,4-c]pyridine-5-carboxylic acid phenylmethyl ester (10);
(3 α ,4 α ,7 α ,7a α)-Hexahydro-2-[3-(trifluoromethyl)phenyl]-4,7-ethano-1H-pyrrolo[3,4-c]pyridine-1,3(2H)-dione trifluoroacetate (11);
(3 α ,4 α ,7 α ,7a α)-5-Acetylhexahydro-2-[3-(trifluoromethyl)phenyl]-4,7-ethano-1H-pyrrolo[3,4-c]pyridine-1,3(2H)-dione (12);
25 (3 α ,4 α ,7 α ,7a α)-5-Benzoylhexahydro-2-[3-(trifluoromethyl)phenyl]-4,7-ethano-1H-pyrrolo[3,4-c]pyridine-1,3(2H)-dione (13);
(3 α ,4 α ,7 α ,7a α)-Hexahydro-5-methyl-2-[3-(trifluoromethyl)phenyl]-4,7-ethano-1H-pyrrolo[3,4-c]pyridine-1,3(2H)-dione (14);

(3 α ,4 α ,7 α ,7a α)-Hexahydro-5-(phenylmethyl)-2-[3-(trifluoromethyl)phenyl]-4,7-ethano-1H-pyrrolo[3,4-c]pyridine-1,3(2H)-dione trifluoroacetate (15);

(3 α ,4 α ,7 α ,7a α)-Hexahydro-5-propyl-2-[3-(trifluoromethyl)phenyl]-4,7-ethano-1H-pyrrolo[3,4-c]pyridine-1,3(2H)-dione trifluoroacetate (16);

5 (3 α ,4 α ,4a β ,5a β ,6 α ,6a α)-2-[4-Cyano-3-(trifluoromethyl)phenyl]decahydro-1,3-dioxo-4,6-(iminomethano)cycloprop[f]isoindole-7-carboxylic acid phenylmethyl ester (17);

(3 α ,4 α ,4a β ,5a β ,6 α ,6a α)-4-[Decahydro-1,3-dioxo-4,6-(iminomethano)cycloprop[f]isoindol-2-yl]-2-(trifluoromethyl)benzonitrile (18);

10 (3 α ,4 α ,4a β ,5a β ,6 α ,6a α)-4-[Decahydro-7-methyl-1,3-dioxo-4,6-(iminomethano)cycloprop[f]isoindol-2-yl]-2-(trifluoromethyl)benzonitrile (19);

(3 α ,4 β ,7 β ,7a α)-4-(Octahydro-4,7-dimethyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)-2-(trifluoromethyl)benzonitrile (20B);

(3 α ,4 β ,7 β ,7a α)-N-[4-[[2-[2-[4-Cyano-3-(trifluoromethyl)phenyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-yl]ethyl]thio]phenyl]acetamide (21E);

15 (3 α ,4 β ,7 β ,7a α)-N-[4-[[2-[2-[4-Cyano-3-(trifluoromethyl)phenyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-yl]ethyl]sulfinyl]phenyl]acetamide (22);

20 (3 α ,4 β ,7 β ,7a α)-N-[4-[[2-[2-[4-Cyano-3-(trifluoromethyl)phenyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-yl]ethyl]sulfonyl]phenyl]acetamide (23);

(3 α ,4 β ,7 β ,7a α)- and (3 α ,4 α ,7 α ,7a α)-N-[2-[2-[4-Cyano-3-(trifluoromethyl)phenyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-yl]ethyl]benzenesulfonamide (24Ci & 24Cii, respectively);

25 (3 α ,4 β ,7 β ,7a α)-4-[Octahydro-4-(2-hydroxyethyl)-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile (25B);

(3 α ,4 α ,7 α ,7a α)- and (3 α ,4 β ,7 β ,7a α)-N-[4-[[2-[4-Cyano-3-(trifluoromethyl)phenyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-yl]ethoxy]phenyl]acetamide (26Ci & 26Cii, respectively);

(3 α ,4 α ,7 α ,7a α)-Hexahydro-2-(2-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione (27D);
(1 α ,2 β ,2a α ,5a α ,6 β ,6a α)-Hexahydro-4-(2-naphthalenyl)-2,6-epoxy-3H-oxireno[*f*]isoindole-3,5(4H)-dione (28B);

5 (3 α ,4 α ,7 α ,7a α)-2-[4-Bromo-3-(trifluoromethyl)phenyl]-3a,4,7,7a-tetrahydro-4,7-dimethyl-4,7-epithio-1H-isoindole-1,3(2H)-dione 8-oxide (29);
(3 α ,4 α ,7 α ,7a α)-2-[4-Bromo-3-(trifluoromethyl)phenyl]-3a,4,7,7a-tetrahydro-4,7-epithio-1H-isoindole-1,3(2H)-dione 8-oxide (30);
(3 α ,4 α ,7 α ,7a α)-Hexahydro-2-[3-(trifluoromethyl)phenyl]-4,7-imino-1H-isoindole-1,3(2H)-dione (31D);
10 (3 α ,4 β ,7 β ,7a α)- and (3 α ,4 α ,7 α ,7a α)-3a,4,7,7a-Tetrahydro-4,7-dimethyl-2-[3-(trifluoromethyl)phenyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione (32i & 32ii, respectively);
(3 α ,4 α ,7 α ,7a α)-Hexahydro-4,7-dimethyl-2-[3-(trifluoromethyl)phenyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione (33);
15 (3 α ,4 α ,7 α ,7a α)-Tetrahydro-5-methyl-2-(4-nitro-1-naphthalenyl)-4,7-etheno-1H-pyrrolo[3,4-c]pyridine-1,3,6(2H,5H)-trione (34B);
(3 α ,4 β ,7 β ,7a α)-4-[4-[2-(4-Fluorophenoxy)ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile (35);
20 (3 α ,4 β ,7 β ,7a α)-4-[4-(2-Bromoethyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile (36);
(3 α ,4 β ,7 β ,7a α)-Hexahydro-4,7-dimethyl-2-(3-methyl-4-nitrophenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione (37);
(3 α ,4 β ,7 β ,7a α)-2-(2-Fluorenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;
25 (3 α ,4 β ,7 β ,7a α)-2-[3-Chloro-4-(4-morpholinyl)phenyl]hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;
(3 α ,4 β ,7 β ,7a α)-2-(2,3-Dihydro-1H-inden-5-yl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-Bromo-1-naphthalenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-Chloro-1-naphthalenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

5 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(5-Amino-1-naphthalenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;
3 α ,4 β ,7 β ,7 $\alpha\alpha$ -Hexahydro-2-(7-hydroxy-1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(4-nitro-1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

10 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(1H-indol-5-yl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(1H-indazol-6-yl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

15 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(1,3-Benzodioxol-5-yl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;
(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-[4-Amino-3-(trifluoromethyl)phenyl]hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(3-Chloro-4-iodophenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

20 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(8-quinolinyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;
(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(2,3-Dihydro-1,4-benzodioxin-6-yl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

25 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-[2-oxo-4-(trifluoromethyl)-2H-1-benzopyran-7-yl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;
(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(4-methyl-2-oxo-2H-1-benzopyran-7-yl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(2,5-Dimethoxy-4-nitrophenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

30 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(2,5-Dimethoxy-4-nitrophenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2,3,5,6-Tetrafluoro-4-(octahydro-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(2,4,5-trifluorophenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

5 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(2,4,5-trichlorophenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-2-(2-Amino-4,5-dichlorophenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(3,4-Difluorophenyl)hexahydro-4,7-epoxy-1H-isoindole-10 1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-1-Acetyl-2,3-dihydro-6-(octahydro-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)-1H-indole;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(3-Chloro-4-fluorophenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

15 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(3,4-Dichlorophenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(3,4,5-trichlorophenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(3-Chloro-4-methoxyphenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

20 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(3-Chloro-4-methylphenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(2-methyl-1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

25 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-Chloro-3-methylphenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(3,4-Dimethylphenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-[4-Bromo-3-(trifluoromethyl)phenyl]hexahydro-4,7-epoxy-30 1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-(4-Bromo-3-methylphenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-(4-Fluoro-3-nitrophenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

5 (3 α ,4 β ,7 β ,7 α)-2-[4-Fluoro-3-(trifluoromethyl)phenyl]hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-(4-Chloro-3-nitrophenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-[4-Chloro-3-(trifluoromethyl)phenyl]hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

10 (3 α ,4 β ,7 β ,7 α)-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-(4-Chloro-2-methoxy-5-methylphenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-(4-Amino-3-nitrophenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

15 (3 α ,4 β ,7 β ,7 α)-Hexahydro-2-(4-methyl-3-nitrophenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-(3,4-Dimethoxyphenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-Hexahydro-2-(3-hydroxy-4-methoxyphenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

20 (3 α ,4 β ,7 β ,7 α)-Hexahydro-2-(4-methyl-5-nitro-2-pyridinyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-Chloro-4-(octahydro-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)- α -phenylbenzeneacetonitrile;

25 (3 α ,4 β ,7 β ,7 α)-Hexahydro-2-(2-methoxy-3-dibenzofuranyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-Hexahydro-2-(2,3,4-trifluorophenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(2,3-Dihydro-2-methyl-1,3-dioxo-1H-isoindol-5-yl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-Bromo-2,3,5,6-tetrafluorophenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

5 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(2-hydroxy-1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-[2,5-Dichloro-4-(1H-pyrrol-1-yl)phenyl]hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-[4-(methoxymethyl)-2-oxo-2H-1-benzopyran-7-10 yl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(6-Benzothiazolyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-Methoxy-4-(octahydro-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)benzoic acid methyl ester;

15 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-Methyl-5-(octahydro-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(2-oxo-2H-1-benzopyran-6-yl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(2,3,5,6-tetramethyl-4-nitrophenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

20 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(2,4,5-trimethylphenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-Fluoro-3-methylphenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

25 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(3-methoxy-4-methylphenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-N-Ethyl-2-methyl-5-(octahydro-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)-N-phenylbenzenesulfonamide;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2,6-Dibromo-4-(octahydro-1,3-dioxo-4,7-epoxy-2H-isoindol-30 2-yl)benzenesulfonamide;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2,4-Dimethyl-6-(octahydro-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)-3-pyridinecarbonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(2,3-Dimethyl-1H-indol-5-yl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

5 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(3-Dibenzofuranyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(2'-hydroxy[1,1':3',1"-terphenyl]-5'-yl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(5,6,7,8-tetrahydro-3-hydroxy-2-naphthalenyl)-

10 4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(2,3-Dihydro-1H-indol-6-yl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(1,3-Dihydro-2,2-dioxidobenzo[c]thiophen-5-yl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

15 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(2-hydroxy-4,5-dimethylphenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(2,3-Dihydro-2,2,3,3-tetrafluoro-1,4-benzodioxin-6-yl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(1H-indazol-5-yl)-4,7-epoxy-1H-isoindole-

20 1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-Amino-2,3,5,6-tetrafluorophenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-Bromo-3-chlorophenyl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

25 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(5-hydroxy-1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-(Octahydro-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-Morpholinyl)-5-(octahydro-1,3-dioxo-4,7-epoxy-2H-

30 isoindol-2-yl)benzoic acid methyl ester;

(3 α ,4 β ,7 β ,7 α)-2-Fluoro-5-(octahydro-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)benzonitrile;

(3 α ,4 β ,7 β ,7 α)-Hexahydro-2-(2-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

5 (3 α ,4 β ,7 β ,7 α)-2-(9-Ethyl-9H-carbazol-3-yl)hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-[1,2-Dihydro-8-methyl-2-oxo-4-(trifluoromethyl)-7-quinolinyl]hexahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 α ,7 α ,7 α)-Hexahydro-2-[3-(trifluoromethyl)phenyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

10 (3 α ,4 α ,7 α ,7 α)-Hexahydro-2-(4-nitro-1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-(4-Bromo-3-methylphenyl)-3a,4,7,7a-tetrahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

15 (3 α ,4 β ,7 β ,7 α)-3a,4,7,7a-Tetrahydro-2-(2-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-(9-Ethyl-9H-carbazol-3-yl)-3a,4,7,7a-tetrahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-[4-Fluoro-3-(trifluoromethyl)phenyl]-3a,4,7,7a-tetrahydro-

20 4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-[1,2-Dihydro-8-methyl-2-oxo-4-(trifluoromethyl)-7-quinolinyl]-3a,4,7,7a-tetrahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 α ,7 α ,7 α)-4-[(Acetyloxy)methyl]-2-(4-bromo-3-methylphenyl)-3a,4,7,7a-tetrahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

25 (3 α ,4 β ,7 β ,7 α)-4-[(Acetyloxy)methyl]-2-(4-bromo-3-methylphenyl)-3a,4,7,7a-tetrahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione.;

(3 α ,4 β ,7 β ,7 α)-Hexahydro-4,7-dimethyl-2-[3-(trifluoromethyl)phenyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-4-(Octahydro-4,7-dimethyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7a α)-(Benz[b]thiophen-3-yl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7a α)-Hexahydro-4,7-dimethyl-2-[4-nitro-3-(trifluoromethyl)phenyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

5 (3 α ,4 β ,7 β ,7a α)-4-(1,3,3a,4,7,7a-Hexahydro-4,7-dimethyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)-1-naphthalenecarbonitrile;

(3 α ,4 α ,7 α ,7a α)-Hexahydro-4-methyl-2-(naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7a α)-2-(4-Bromo-3-methylphenyl)hexahydro-4-methyl-4,7-epoxy-

10 1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7a α)-Hexahydro-4-methyl-2-[3-(trifluoromethyl)phenyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7a α)-2-(3,5-Dichlorophenyl)hexahydro-4-methyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

15 (3 α ,4 β ,7 β ,7a α)-2-(3-Chloro-4-fluorophenyl)hexahydro-4-methyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7a α)-2-Methoxy-4-(octahydro-1,3-dioxo-4-methyl-4,7-epoxy-2H-isoindol-2-yl)-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7a α)-Hexahydro-4-methyl-2-[4-nitro-3-(trifluoromethyl)phenyl]-4,7-

20 epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7a α)-Hexahydro-2-[4-(1H-imidazol-1-yl)phenyl]-4-methyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7a α)-2-[3-Chloro-4-(2-thiazolyl)phenyl]hexahydro-4-methyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

25 (3 α ,4 α ,7 α ,7a α)-2-(3,5-Dichlorophenyl)hexahydro-4,7-imino-1H-isoindole-1,3(2H)-dione;

(3 α ,4 α ,7 α ,7a α)-2-(4-Bromo-1-naphthalenyl)hexahydro-4,7-imino-1H-isoindole-1,3(2H)-dione;

(3 α ,4 α ,7 α ,7a α)-2-(4-Bromo-3-methylphenyl)hexahydro-4,7-imino-1H-

30 isoindole-1,3(2H)-dione;

(3 α ,4 α ,7 α ,7 $\alpha\alpha$)-Hexahydro-2-(4-nitro-1-naphthalenyl)-4,7-imino-1H-isoindole-1,3(2H)-dione;

(3 α ,4 α ,7 α ,7 $\alpha\alpha$)-8-Acetyl-2-(3,5-dichlorophenyl)hexahydro-4,7-imino-1H-isoindole-1,3(2H)-dione;

5 (3 α ,4 α ,7 α ,7 $\alpha\alpha$)-Octahydro-1,3-dioxo-2-[3-(trifluoromethyl)phenyl]-4,7-ethano-5H-pyrrolo[3,4-c]pyridine-5-carboxylic acid phenyl ester;

(3 α ,4 α ,7 α ,7 $\alpha\alpha$)-4-(Octahydro-1,3-dioxo-4,7-ethano-2H-pyrrolo[3,4-c]pyridin-2-yl)-1-naphthalenecarbonitrile;

(3 α ,4 α ,7 α ,7 $\alpha\alpha$)-4-(Octahydro-5-methyl-1,3-dioxo-4,7-ethano-2H-pyrrolo[3,4-10 c]pyridin-2-yl)-1-naphthalenecarbonitrile;

(3 α ,4 α ,7 α ,7 $\alpha\alpha$)-2-(4-Cyano-1-naphthalenyl)octahydro-1,3-dioxo-4,7-etheno-5H-pyrrolo[3,4-c]pyridine-5-carboxylic acid phenylmethyl ester;

(3 α ,4 α ,7 α ,7 $\alpha\alpha$)-4-(Octahydro-1,3-dioxo-4,7-ethano-2H-pyrrolo[3,4-c]pyridin-2-yl)-2-(trifluoromethyl)benzonitrile;

15 (3 α ,4 α ,7 α ,7 $\alpha\alpha$)-4-(Octahydro-5-methyl-1,3-dioxo-4,7-ethano-2H-pyrrolo[3,4-c]pyridin-2-yl)-2-(trifluoromethyl)benzonitrile;

(3 α ,4 α ,7 α ,7 $\alpha\alpha$)-2-[4-Cyano-3-(trifluoromethyl)phenyl]octahydro-1,3-dioxo-4,7-etheno-5H-pyrrolo[3,4-c]pyridine-5-carboxylic acid phenylmethyl ester;

(3 α ,4 α ,7 α ,7 $\alpha\alpha$)-2-[4-Bromo-3-(trifluoromethyl)phenyl]tetrahydro-5-methyl-20 4,7-etheno-1H-pyrrolo[3,4-c]pyridine-1,3,6(2H,5H)-trione;

(3 α ,4 α ,7 α ,7 $\alpha\alpha$)-Tetrahydro-5-methyl-2-[3-(trifluoromethyl)phenyl]-4,7-etheno-1H-pyrrolo[3,4-c]pyridine-1,3,6(2H,5H)-trione;

(3 α ,4 α ,7 α ,7 $\alpha\alpha$)-Tetrahydro-5-methyl-2-(2-naphthalenyl)-4,7-etheno-1H-pyrrolo[3,4-c]pyridine-1,3,6(2H,5H)-trione;

25 (1 α ,2 β ,2 α ,5 α ,6 β ,6 $\alpha\alpha$)-Hexahydro-4-[3-(trifluoromethyl)phenyl]-2,6-epoxy-3H-oxireno[f]isoindole-3,5(4H)-dione;

(1 α ,2 β ,2 α ,5 α ,6 β ,6 $\alpha\alpha$)-4-(3,5-Dichlorophenyl)hexahydro-2,6-epoxy-3H-oxireno[f]isoindole-3,5(4H)-dione;

(1 α ,2 β ,2 α ,5 α ,6 β ,6 $\alpha\alpha$)-Hexahydro-4-(4-nitro-1-naphthalenyl)-2,6-epoxy-30 3H-oxireno[f]isoindole-3,5(4H)-dione;

(1a α ,2 β ,2a α ,5a α ,6 β ,6a α)-4-(3,4-Dichlorophenyl)hexahydro-2,6-epoxy-3H-oxireno[*f*]isoindole-3,5(4H)-dione;

2-[4-(4-Bromophenoxy)phenyl]-3a,4,7,7a-tetrahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

5 3a,4,7,7a-Tetrahydro-2-(2-methoxyphenyl)-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-;

[(1,2,3,3a,7,7a-Hexahydro-2-phenyl-4,7-epoxy-4H-isoindol-4-yl)methyl]carbamic acid (3,5-dimethoxyphenyl)methyl ester;

2-(2,4-Dimethylphenyl)-3a,4,7,7a-tetrahydro-4-(hydroxymethyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

10 2-(1,3-Benzodioxol-5-yl)-3a,4,7,7a-tetrahydro-4-methyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

4-[Bis(acetoxy)methyl]-2-(3-bromophenyl)-3a,4,7,7a-tetrahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

15 N-[[1,2,3,3a,7,7a-Hexahydro-2-(2,4,6-trimethylphenyl)-4,7-epoxy-4H-isoindol-4-yl)methyl]-2,2-dimethylpropanamide;

3a,4,7,7a-Tetrahydro-4-(hydroxymethyl)-2-[2-(trifluoromethyl)phenyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

3a,4,7,7a-Tetrahydro-4-(hydroxymethyl)-2-(1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

20 2-Chloro-5-(1,3,3a,4,7,7a-hexahydro-4,7-dimethyl-4,7-epoxy-2H-isoindol-2-yl)benzoic acid methyl ester;

4-[Bis(acetoxy)methyl]-2-(4-bromo-2-nitrophenyl)-3a,4,7,7a-tetrahydro-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

25 3a,4,7,7a-Tetrahydro-4-methyl-2-(4-methyl-3-nitrophenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

2-[2-Chloro-5-(trifluoromethyl)phenyl]-3a,4,7,7a-tetrahydro-4-methyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

30 2-[4-Chloro-3-(trifluoromethyl)phenyl]-3a,4,7,7a-tetrahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

2-(1,3,3a,4,7,7a-Hexahydro-4-methyl-4,7-epoxy-2H-isoindol-2-yl)benzonitrile;

2-(4-Fluorophenyl)-3a,4,7,7a-tetrahydro-4-methyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

2,2,2-Trifluoro-N-[(1,2,3,3a,7,7a-hexahydro-2-phenyl-4,7-epoxy-4H-isoindol-4-yl)methyl]acetamide;

5 3a,4,7,7a-Tetrahydro-4,7-dimethyl-2-(4-methyl-3-nitrophenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

2-Chloro-5-[1,3,3a,4,7,7a-hexahydro-4-(hydroxymethyl)-4,7-epoxy-2H-isoindol-2-yl]benzoic acid;

3a,4,7,7a-Tetrahydro-4,7-dimethyl-2-(4-nitrophenyl)-4,7-epoxy-1H-isoindole-10 1,3(2H)-dione;

3a,4,7,7a-Tetrahydro-2-(2-mercaptophenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

3a,4,7,7a-Tetrahydro-2-[2-[(phenylmethyl)thio]phenyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

15 [[2-(4-Chlorophenyl)-1,2,3,3a,7,7a-hexahydro-4,7-epoxy-4H-isoindol-4-yl]methyl]carbamic acid 2-methylpropyl ester;

4-(1,1-Dimethylethyl)-N-[(1,2,3,3a,7,7a-hexahydro-2-(4-methylphenyl)-4,7-epoxy-4H-isoindol-4-yl)methyl]benzamide;

2,4-Dichloro-N-[(1,2,3,3a,7,7a-hexahydro-2-(4-nitrophenyl)-4,7-epoxy-4H-20 isoindol-4-yl)methyl]benzamide;

N-[[2-(4-Chlorophenyl)-1,2,3,3a,7,7a-hexahydro-4,7-epoxy-4H-isoindol-4-yl]methyl]-2,4,6-trimethylbenzenesulfonamide;

[(1,2,3,3a,7,7a-Hexahydro-2-phenyl-4,7-epoxy-4H-isoindol-4-yl)methyl]carbamic acid 1,1-dimethylethyl ester;

25 N-[(1,2,3,3a,7,7a-Hexahydro-2-phenyl-4,7-epoxy-4H-isoindol-4-yl)methyl]-2-phenoxyacetamide;

N-[(1,2,3,3a,7,7a-Hexahydro-2-(4-nitrophenyl)-4,7-epoxy-4H-isoindol-4-yl)methyl]-2,2-dimethylpropanamide;

2-(2,4-Dichlorophenoxy)-N-[(1,2,3,3a,7,7a-hexahydro-2-(4-nitrophenyl)-4,7-30 epoxy-4H-isoindol-4-yl)methyl]acetamide;

N-[1,2,3,3a,7,7a-Hexahydro-2-(4-methylphenyl)-4,7-epoxy-4H-isoindol-4-yl]methyl]-3,5-dimethoxybenzamide;

N-[2-(4-Chlorophenyl)-1,2,3,3a,7,7a-hexahydro-4,7-epoxy-4H-isoindol-4-yl]methyl]-2-nitrobenzenesulfonamide;

5 (3 α ,4 β ,7 β ,7a α)-Hexahydro-2-[(1S)-1-phenylethyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7a α)-Hexahydro-2-[(1S)-2-hydroxy-1-phenylethyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7a α)-2-[(1S)-2-(Acetoxy)-1-phenylethyl]-3a,4,7,7a-tetrahydro-

10 4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 α ,7 α ,7a α)-3a,4,7,7a-Tetrahydro-2-[(1S)-1-phenylethyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7a α)-Hexahydro-2-[(1R)-1-phenylethyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

15 (3 α ,4 β ,7 β ,7a α)-4-[(Octahydro-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)methyl]amino]benzoic acid;

(3 α ,4 β ,7 β ,7a α)-Hexahydro-2-(4-morpholinylmethyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione

(3 α ,4 β ,7 β ,7a α)-4-[Octahydro-4-(2-hydroxyethyl)-7-methyl-1,3-dioxo-4,7-epoxy-

20 2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7a α)- and (3 α ,4 α ,7 α ,7a α)-4-[Octahydro-4-methyl-1,3-dioxo-7-(phenylmethyl)-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7a α)-4-[7-[2-(4-Bromophenoxy)ethyl]octahydro-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

25 (3 α ,4 β ,7 β ,7a α)-4-[Octahydro-7-[2-(4-Iodophenoxy)ethyl]-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7a α)-4-[Octahydro-4-methyl-1,3-dioxo-7-[2-[4-(trifluoromethyl)phenoxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3a α ,4 β ,7 β ,7a α)-4-[Octahydro-7-[2-(4-methoxyphenoxy)ethyl]-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3a α ,4 β ,7 β ,7a α)-4-[7-[2-(4-Ethoxyphenoxy)ethyl]octahydro-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

5 (3a α ,4 β ,7 β ,7a α)-4-[7-[2-(4-Chlorophenoxy)ethyl]octahydro-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3a α ,4 β ,7 β ,7a α)-4-[2-[2-[4-Cyano-3-(trifluoromethyl)phenyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-yl]ethoxy]benzoic acid, methyl ester;

10 (3a α ,4 β ,7 β ,7a α)-Hexahydro-4-(2-hydroxyethyl)-7-methyl-2-(3-methyl-4-nitrophenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3a α ,4 β ,7 β ,7a α)-4-[Octahydro-4-methyl-1,3-dioxo-7-[2-[4-(trifluoromethoxy)phenoxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

15 (3a α ,4 β ,7 β ,7a α)-2-(3,5-Dichlorophenyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3a α ,4 β ,7 β ,7a α)-Hexahydro-4,7-dimethyl-2-(4-nitro-1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3a α ,4 β ,7 β ,7a α)-2-[4-Cyano-3-(trifluoromethyl)phenyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindole-4-propanenitrile;

20 (3a α ,4 β ,7 β ,7a α)-4-[Octahydro-4-methyl-7-[2-(4-morpholinyl)ethyl]-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile, trifluoroacetate;

(3a α ,4 β ,7 β ,7a α)-2-(5-Fluoro-1-naphthalenyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

25 (3a α ,4 β ,7 β ,7a α)-2-(5-Fluoro-4-nitro-1-naphthalenyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3a α ,4 β ,7 β ,7a α)-2-(1,1-Dioxidobenzo[b]thiophen-3-yl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

30 4-(1,3,3a,4,7,7a-Hexahydro-4,6,7-trimethyl-1,3-dioxo-4,7-epoxy-2H-pyrrolo[3,4-c]pyridin-2-yl)-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Tetrahydro-4,7-dimethyl-2-[3-(trifluoromethyl)phenyl]-4,7-
epoxy-1H-isoindole-1,3,5(2H,4H)-trione;

(3 $\alpha\alpha$,4 α ,7 α ,7 $\alpha\alpha$)-Tetrahydro-4,7-dimethyl-2-[3-(trifluoromethyl)phenyl]-4,7-
epoxy-1H-isoindole-1,3,5(2H,4H)-trione;

5 (3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-2-(5-Chloro-1-naphthalenyl)hexahydro-4,7-dimethyl-4,7-
epoxy-1H-isoindole-1,3(2H)-dione;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-2-(5-Chloro-4-nitro-1-naphthalenyl)hexahydro-4,7-dimethyl-
4,7-epoxy-1H-isoindole-1,3(2H)-dione;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-4-Ethylhexahydro-7-methyl-2-(4-nitro-1-naphthalenyl)-4,7-
10 epoxy-1H-isoindole-1,3(2H)-dione;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-Cyano-1-naphthalenyl)-N-(4-fluorophenyl)octahydro-7-
methyl-1,3-dioxo-4,7-epoxy-4H-isoindole-4-acetamide;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4-methyl-2-(2-naphthalenyl)-4,7-epoxy-1H-
isoindole-1,3(2H)-dione, faster eluting enantiomer;

15 (3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4-methyl-2-(2-naphthalenyl)-4,7-epoxy-1H-
isoindole-1,3(2H)-dione, slower eluting enantiomer;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-4-[4-[2-[(4-
Fluorophenyl)methyl]methylamino]ethyl]octahydro-7-methyl-1,3-dioxo-4,7-
epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

20 (3 $\alpha\alpha$,4 β ,5 β ,6 β ,7 β ,7 $\alpha\alpha$)-4-(Octahydro-4,5,6,7-tetramethyl-1,3-dioxo-4,7-epoxy-
2H-isoindol-2-yl)-2-(trifluoromethyl)benzonitrile;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-1,3-dioxo-7-[2-[4-
(trifluoromethyl)phenoxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-2-
(trifluoromethyl)benzonitrile, faster eluting antipode;

25 (3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-1,3-dioxo-7-[2-[4-
(trifluoromethyl)phenoxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-2-
(trifluoromethyl)benzonitrile, slower eluting enantiomer;
(3 $\alpha\alpha$,4 β ,5 β ,7 β ,7 $\alpha\alpha$)-4-(Octahydro-5-hydroxy-4,7-dimethyl-1,3-dioxo-4,7-
epoxy-2H-isoindol-2-yl)-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,5 α ,7 β ,7 $\alpha\alpha$)4-(Octahydro-5-hydroxy-4,7-dimethyl-1,3-dioxo-4,7-
epoxy-2H-isoindol-2-yl)-2-(trifluoromethyl)benzonitrile;

(α R)- α -Methoxybenzeneacetic acid, 2-[(3 α ,4 β ,7 β ,7 $\alpha\alpha$)2-(4-cyano-1-
naphthalenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-yl]ethyl
5 ester;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)2-(Methylthio)-4-(octahydro-4,7-dimethyl-1,3-dioxo-4,7-
epoxy-2H-isoindol-2-yl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)2-(Methylsulfinyl)-4-(octahydro-4,7-dimethyl-1,3-dioxo-4,7-
epoxy-2H-isoindol-2-yl)benzonitrile;

10 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)2-(Methylsulfonyl)-4-(octahydro-4,7-dimethyl-1,3-dioxo-4,7-
epoxy-2H-isoindol-2-yl)benzonitrile;

(3 α ,4 β ,5 β ,7 β ,7 $\alpha\alpha$)7-[2-[(1,1-
Dimethylethyl)dimethylsilyl]oxyethyl]hexahydro-5-hydroxy-4-methyl-2-(4-nitro-
1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

15 (3 α ,4 β ,5 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-5-hydroxy-7-(2-hydroxyethyl)-4-methyl-2-(4-
nitro-1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,5 β ,7 β ,7 $\alpha\alpha$)7-[2-(4-Fluorophenoxy)ethyl]hexahydro-5-hydroxy-4-
methyl-2-(4-nitro-1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,4 β ,5 β ,6 β ,7 β ,7 $\alpha\alpha$)4-(Octahydro-5,6-dihydroxy-4,7-dimethyl-1,3-dioxo-
20 4,7-epoxy-2H-isoindol-2-yl)-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,5 α ,6 α ,7 β ,7 $\alpha\alpha$)4-(Octahydro-5,6-dihydroxy-4,7-dimethyl-1,3-dioxo-
4,7-epoxy-2H-isoindol-2-yl)-2-(trifluoromethyl)benzonitrile;

3 α ,4 β ,4 β ,5 β ,6 β ,7 β ,7 $\alpha\alpha$)4-[Octahydro-5,6-dihydroxy-4-(hydroxyethyl)-7-methyl-
1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

25 (3 α ,4 β ,5 β ,6 β ,7 β ,7 $\alpha\alpha$)4-[Octahydro-5,6-dihydroxy-4-methyl-1,3-dioxo-7-[2-
[4-(trifluoromethyl)phenoxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-2-
(trifluoromethyl)benzonitrile;

(3 α ,4 β ,5 β ,5 $\alpha\beta$,8 $\alpha\beta$,8 $\beta\alpha$)4-(Decahydro-5-hydroxy-4-methyl-1,3-dioxo-4,8a-
epoxy-2H-furo[3,2-e]isoindol-2-yl)-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-Cyano-1-naphthalenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindole-4-acetic acid;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-Cyano-1-naphthalenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindole-4-acetic acid, methyl ester;

5 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-Cyano-1-naphthalenyl)-N-[(4-fluorophenyl)methyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindole-4-acetamide;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-N-[2-[2-(4-Cyano-1-naphthalenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-yl]ethyl]-4-fluorobenzamide;

10 [3aR-(3 α ,4 β ,7 β ,7 $\alpha\alpha$)]-4-[Octahydro-4-(2-hydroxyethyl)-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aS-(3 α ,4 β ,7 β ,7 $\alpha\alpha$)]-4-[Octahydro-4-(2-hydroxyethyl)-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aR-(3 α ,4 β ,7 β ,7 $\alpha\alpha$)]-4-[4-[2-(3-Fluorophenoxy)ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

15 [3aS-(3 α ,4 β ,7 β ,7 $\alpha\alpha$)]-4-[4-[2-(3-Fluorophenoxy)ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(4-Fluorophenyl)carbamic acid, 2-[(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-cyano-1-naphthalenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-yl]ethyl ester;

20 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-(2-hydroxyethyl)-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,6 β ,7 β ,7 $\alpha\alpha$)-4-[4-[2-(4-Cyanophenoxy)ethyl]octahydro-6-hydroxy-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

25 [3aS-(3 α ,4 β ,5 β ,7 β ,7 $\alpha\alpha$)]-4-[Octahydro-5-hydroxy-7-(2-hydroxyethyl)-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aR-(3 α ,4 β ,5 β ,7 β ,7 $\alpha\alpha$)]-4-[Octahydro-5-hydroxy-7-(2-hydroxyethyl)-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[4-[2-(4-Cyanophenoxy)ethyl]-7-ethyloctahydro-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

30

(3 α ,4 β ,7 β ,7 α)-4-[2-(Acetoxyethyl)-2-(4-cyano-1-naphthalenyl)hexahydro-7-methyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-4-[Octahydro-4-methyl-1,3-dioxo-7-(2-oxoethyl)-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

5 [3 α ,4 β (E),7 β ,7 α]-4-[4-[3-(4-Cyanophenyl)-2-propenyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3 α ,4 β (Z),7 β ,7 α]-4-[4-[3-(4-Cyanophenyl)-2-propenyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7 α)-4-[4-[3-(4-Cyanophenyl)propyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

10 (3 α ,4 β ,7 β ,7 α)-4-[4-[2-[(6-Chloro-1,2-benzisoxazol-3-yl)oxy]ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7 α)-4-[Octahydro-4-methyl-7-[2-[(6-nitro-1H-indazol-3-yl)oxy]ethyl]-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

15 [3aS-(3 α ,4 β ,5 β ,7 β ,7 α)]-4-[7-[2-(1,2-Benzisoxazol-3-yloxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aR-(3 α ,4 β ,5 β ,7 β ,7 α)]-4-[7-[2-(1,2-Benzisoxazol-3-yloxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-

20 naphthalenecarbonitrile;

(3 α ,4 β ,5 β ,7 β ,7 α)-4-(Octahydro-5-hydroxy-4,7-dimethyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,5 β ,7 β ,7 α)-4-(Octahydro-5-hydroxy-4,7-dimethyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)-2-(trifluoromethyl)benzonitrile;

25 (3 α ,4 β ,7 β ,7 α)-2-(4-Cyano-1-naphthalenyl)octahydro-1,3-dioxo-7-[2-(phenylmethoxy)ethyl]-4,7-epoxy-4H-isoindole-4-propanenitrile;

(3 α ,4 α ,7 α ,7 α)-2-(4-Cyano-1-naphthalenyl)octahydro-1,3-dioxo-7-[2-(phenylmethoxy)ethyl]-4,7-epoxy-4H-isoindole-4-propanenitrile;

(3 α ,4 β ,7 β ,7 α)-2-(4-Cyano-1-naphthalenyl)octahydro-7-(2-hydroxyethyl)-

30 1,3-dioxo-4,7-epoxy-4H-isoindole-4-propanenitrile;

(3 α ,4 α ,7 α ,7a α)-2-(4-Cyano-1-naphthalenyl)octahydro-7-(2-hydroxyethyl)-1,3-dioxo-4,7-epoxy-4H-isoindole-4-propanenitrile;

(3 α ,4 β ,7 β ,7a α)-2-(4-Cyano-1-naphthalenyl)-7-[2-(4-fluorophenoxy)ethyl]octahydro-1,3-dioxo-4,7-epoxy-4H-isoindole-4-

5 propanenitrile;

(3 α ,4 β ,7 β ,7a α)-2-(7-Chloro-2,1,3-benzoxadiazol-4-yl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7a α)-2-(7-Chloro-2-methyl-4-benzofuranyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

10 (3 α ,4 β ,7 β ,7a α)-2-(7-Chloro-2-methylbenzo[b]thiophen-4-yl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

[3 α ,4 β (E),7 β ,7a α]-4-[2-(4-Cyano-1-naphthalenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-yl]-2-butenoic acid, phenylmethyl ester;

(3 α ,4 β ,7 β ,7a α)-2-(4-Cyano-1-naphthalenyl)octahydro-7-methyl-1,3-dioxo-

15 4,7-epoxy-4H-isoindole-4-butanoic acid;

(3 α ,4 β ,7 β ,7a α)-2-(4-Cyano-1-naphthalenyl)-N-(4-fluorophenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindole-4-butananamide;

[3aS-(3 α ,4 β ,5 β ,7 β ,7a α)]-4-[7-[2-(Acetoxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

20 [3aR-(3 α ,4 β ,5 β ,7 β ,7a α)]-4-[Octahydro-5-hydroxy-7-(2-hydroxyethyl)-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7a α (E))-4-[Octahydro-4-methyl-1,3-dioxo-7-(4-oxo-4-phenyl-2-butenyl)-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7a α (E))-4-[Octahydro-4-methyl-1,3-dioxo-7-(4-oxo-4-phenyl-2-butenyl)-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

25 (3 α ,4 β ,7 β ,7a α)-(4-[7-[2-(4-Bromophenoxy)ethyl]octahydro-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7a α)-4-[Octahydro-7-[2-(4-iodophenoxy)ethyl]-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-1,3-dioxo-7-[2-[4-(trifluoromethyl)phenoxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-7-[2-(4-methoxyphenoxy)ethyl]-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[7-[2-(4-Ethoxyphenoxy)ethyl]octahydro-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[7-[2-(4-Chlorophenoxy)ethyl]octahydro-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[2-[2-[4-Cyano-3-(trifluoromethyl)phenyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-yl]ethoxy]benzoic acid, methyl ester;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4-(2-hydroxyethyl)-7-methyl-2-(3-methyl-4-nitrophenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-1,3-dioxo-7-[2-[4-(trifluoromethoxy)phenoxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(3,5-Dichlorophenyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4,7-dimethyl-2-(4-nitro-1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-1,3-dioxo-7-[2-[4-(phenylmethoxy)phenoxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4-(2-hydroxyethyl)-7-methyl-2-(4-nitro-1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[2-(4-Fluorophenoxy)ethyl]hexahydro-7-methyl-2-(3-methyl-4-nitrophenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-1,3-dioxo-7-[2-[4-
[(trifluoromethyl)thio]phenoxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-2-
(trifluoromethyl)benzonitrile;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-7-[2-(4-nitrophenoxy)ethyl]-1,3-dioxo-
5 4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-4-[2-(4-Fluorophenoxy)ethyl]hexahydro-7-methyl-2-(4-nitro-
1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-7-methyl-1,3-dioxo-7-[2-[2-
(trifluoromethyl)phenoxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-2-
10 (trifluoromethyl)benzonitrile;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-4-[4-[2-(2-Bromophenoxy)ethyl]octahydro-7-methyl-1,3-
dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-4-[4-[2-(3-Fluorophenoxy)ethyl]octahydro-7-methyl-1,3-
dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;
15 (3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-[4-(1H-imidazol-1-yl)phenyl]-4-methyl-4,7-
epoxy-1H-isoindole-1,3(2H)-dione;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-2-[3-Chloro-4-(2-thiazolyl)phenyl]hexahydro-4-methyl-4,7-
epoxy-1H-isoindole-1,3(2H)-dione;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4,7-dimethyl-2-(3-methyl-4-nitrophenyl)-4,7-
20 epoxy-1H-isoindole-1,3(2H)-dione;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4,7-dimethyl-2-(2-methyl-4-nitrophenyl)-4,7-
epoxy-1H-isoindole-1,3(2H)-dione;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-2-(3,5-Dichlorophenyl)hexahydro-4-(2-hydroxyethyl)-7-
methyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;
25 (3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-2-(3,5-Dichlorophenyl)-4-[2-(4-
fluorophenoxy)ethyl]hexahydro-7-methyl-4,7-epoxy-1H-isoindole-1,3(2H)-
dione;
(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-[2-(4-hydroxyphenoxy)ethyl]-7-methyl-1,3-
dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[4-[2-(4-Cyanophenoxy)ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-1,3-dioxo-7-[2-[3-(trifluoromethyl)phenoxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

5 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[4-[2-(3-Bromophenoxy)ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[4-[(4-Fluorophenyl)methyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

10 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(1,6-Dihydro-1-methyl-6-oxo-3-pyridinyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4,7-dimethyl-2-(1-methyl-6-oxo-3-piperidinyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[4-[2-(3-Cyanophenoxy)ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

15 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[2-[4-Cyano-3-(trifluoromethyl)phenyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-yl]ethoxy]benzoic acid, phenylmethyl ester;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-1,3-dioxo-7-(2-phenoxyethyl)-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

20 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(3,5-Dichloro-4-nitrophenyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(3,5-Dichloro-4-hydroxyphenyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(5-Fluoro-1-naphthalenyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

25 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4,7-dimethyl-2-(1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-[3-methoxy-4-(5-oxazolyl)phenyl]-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4-[2-(4-methoxyphenoxy)ethyl]-7-methyl-2-(4-nitro-1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4-methyl-2-(4-nitro-1-naphthalenyl)-7-[2-[4-(trifluoromethyl)phenoxy]ethyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

5 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4-methyl-2-(4-nitro-1-naphthalenyl)-7-[2-(4-nitrophenoxy)ethyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(1,6-Dihydro-1,4-dimethyl-6-oxo-3-pyridinyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-7-methyl-2-(4-nitro-1-naphthalenyl)-1,3-dioxo-10 4,7-epoxy-4H-isoindol-4-yl]ethoxy]benzonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-(Octahydro-4,7-dimethyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)-1,2-benzenedicarbonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-(2-Bromoethyl)hexahydro-7-methyl-2-(4-nitro-1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

15 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[4-[2-(4-Cyanophenoxy)ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-[2-(4-methoxyphenoxy)ethyl]-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-[2-(3-methoxyphenoxy)ethyl]-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

20 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[4-[2-(3-Fluorophenoxy)ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-7-[2-[3-(4-morpholinyl)phenoxy]ethyl]-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

25 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-7-[2-[4-nitro-3-(trifluoromethyl)phenoxy]ethyl]-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[4-[2-(3-Cyanophenoxy)ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7 α)-2-(2,3-Dihydro-3-methyl-2-oxo-6-benzothiazolyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-(2,3-Dihydro-2-oxo-6-benzothiazolyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

5 (3 α ,4 β ,7 β ,7 α)-4-[4-[2-[3-(Dimethylamino)phenoxy]ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7 α)-4-[2-[4-Cyano-3-(trifluoromethyl)phenyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-yl]ethoxy]-1,2-benzenedicarbonitrile;

(3 α ,4 β ,7 β ,7 α)-N-[2-Cyano-5-(octahydro-4,7-dimethyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)phenyl]acetamide;

(3 α ,4 β ,7 β ,7 α)-4-(Octahydro-4,7-dimethyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)-2-(trifluoromethoxy)benzonitrile;

(3 α ,4 β ,7 β ,7 α)-2-Methoxy-4-(octahydro-4,7-dimethyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)benzonitrile;

10 15 (3 α ,4 β ,7 β ,7 α)-2-[4-(4,5-Dichloro-1H-imidazol-1-yl)phenyl]hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-[4-(4-Bromo-1-methyl-1H-pyrazol-3-yl)phenyl]hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-4-[Octahydro-4-(2-hydroxyethyl)-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

20 (3 α ,4 β ,7 β ,7 α)-2-Iodo-4-(Octahydro-4,7-dimethyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)benzonitrile;

(3 α ,4 β ,7 β ,7 α)-4-[2-(4-Fluorophenoxy)ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

25 (3 α ,4 β ,7 β ,7 α)-4-[Octahydro-4-methyl-1,3-dioxo-7-[2-[4-(trifluoromethyl)phenoxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7 α)-4-[4-[2-(4-Cyano-3-fluorophenoxy)ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-1,3-dioxo-7-[2-[2,3,5,6-tetrafluoro-4-(trifluoromethyl)phenoxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4,7-dimethyl-2-[4-(1H-1,2,4-triazol-3-yl)phenyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-2-[4-(4,5-Dihydro-5-oxo-1,2,4-oxadiazol-3-yl)phenyl]hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-[3-methoxy-4-(2-oxazolyl)phenyl]-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(4-hydroxy-1-naphthalenyl)-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(8-hydroxy-5-quinolinyl)-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione, trifluoroacetate;

(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-1,3-dioxo-7-[2-[methyl(phenylmethyl)amino]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4,7-dimethyl-2-(5-quinolinyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-5-(Octahydro-4,7-dimethyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)-2-pyridinecarbonitrile;

(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-5-(Octahydro-4,7-dimethyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl)-8-quinolinecarbonitrile;

(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-2-(5-Bromo-4-nitro-1-naphthalenyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-2-(5-Bromo-1-naphthalenyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 $\alpha\alpha$,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4,7-dimethyl-2-[8-(trifluoromethyl)-4-quinolinyl]-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

4-Fluorobenzoic acid, 2-[(3 α ,4 β ,7 β ,7 α)-2-(4-cyano-1-naphthalenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-y]ethyl ester;

5 Benzeneacetic acid, 2-[(3 α ,4 β ,7 β ,7 α)-2-(4-cyano-1-naphthalenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-y]ethyl ester;

4-Fluorobenzeneacetic acid, 2-[(3 α ,4 β ,7 β ,7 α)-2-(4-cyano-1-naphthalenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-y]ethyl ester;

10 (3 α ,4 β ,7 β ,7 α)-Hexahydro-4-methyl-7-[2-[4-(methylsulfonyl)phenoxy]ethyl]-2-(4-nitro-1-naphthalenyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-Hexahydro-2-(2-naphthalenyl)-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-(4-Chloro-1-naphthalenyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

15 (3 α ,4 β ,7 β ,7 α)-N-[(4-Chlorophenyl)methyl]-2-(4-cyano-1-naphthalenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindole-4-acetamide;

4,7,7-Trimethyl-3-oxo-2-oxabicyclo[2.2.1]heptane-1-carboxylic acid, 2-

20 [(3 α ,4 β ,7 β ,7 α)-2-(4-cyano-1-naphthalenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-y]ethyl ester;

(α S)- α -Methoxy- α -(trifluoromethyl)benzeneacetic acid, 2-[(3 α ,4 β ,7 β ,7 α)-2-(4-cyano-1-naphthalenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-y]ethyl ester;

25 (α R)- α -Methoxy- α -(trifluoromethyl)benzeneacetic acid, 2-[(3 α ,4 β ,7 β ,7 α)-2-(4-cyano-1-naphthalenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-y]ethyl ester;

(3 α ,4 β ,7 β ,7 α)-4-[Octahydro-4-methyl-7-[2-[(7-methyl-1,2-benzisoxazol-3-yl)oxy]ethyl]-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

30 (3 α ,4 β ,7 β ,7 α)-4-[4-[2-(1,2-Benzisoxazol-3-yl)oxy]ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[2-(Benzoyloxy)ethyl]-2-(4-cyano-1-naphthalenyl)hexahydro-7-methyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-Cyano-1-naphthalenyl)-4-[2-[(4-nitrobenzoyl)oxy]ethyl]hexahydro-7-methyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

5 4-Chlorobenzoic acid, 2-[(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-cyano-1-naphthalenyl)octahydro-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-y]ethyl ester;

[3 α ,4 β ,7 β ,7 $\alpha\alpha$ (E)]-4-[Octahydro-4-methyl-7-[3-(1-naphthalenyl)-2-propenyl]-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

10 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-7-[3-(1-naphthalenyl)propyl]-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-4,7-dimethyl-2-(2-methyl-6-quinoliny)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

15 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-Hexahydro-2-(5-isoquinoliny)-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(6-Benzothiazolyl)hexahydro-4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

[3 α ,4 β ,7 β ,7 $\alpha\alpha$ (E)]-4-[Octahydro-4-methyl-1,3-dioxo-7-(4-oxo-4-phenyl-2-butenyl)-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

20 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-2-(4-Cyano-1-naphthalenyl)octahydro-N-(2-hydroxyphenyl)-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindole-4-acetamide;

[3 α ,4 β (E),7 β ,7 $\alpha\alpha$]-4-[Octahydro-4-methyl-7-[3-(6-methyl-2-pyridinyl)-2-propenyl]-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

25 (3 α ,4 β ,7 β ,7 $\alpha\alpha$)-4-[Octahydro-4-methyl-7-[3-(6-methyl-2-pyridinyl)propyl]-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aR-(3 α ,4 β ,7 β ,7 $\alpha\alpha$)]-4-[Octahydro-4-[2-(3-methoxyphenoxy)ethyl]-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aS-(3 α ,4 β ,7 β ,7 $\alpha\alpha$)]-4-[Octahydro-4-[2-(3-methoxyphenoxy)ethyl]-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

30 1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aR-(3 α ,4 β ,7 β ,7 α)]-4-[4-[2-(4-Cyanophenoxy)ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aS-(3 α ,4 β ,7 β ,7 α)]-4-[4-[2-(4-Cyanophenoxy)ethyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

5 (3 α ,4 α ,7 α ,7 α)-4-[4-[(4-Fluorophenyl)methyl]octahydro-7-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-2-(trifluoromethyl)benzonitrile;

(3 α ,4 α ,7 α ,7 α)-Hexahydro-4,7-dimethyl-2-(1-methyl-6-oxo-3-piperidinyl)-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 α ,7 α ,7 α)-2-(1,6-Dihydro-1,4-dimethyl-6-oxo-3-pyridinyl)hexahydro-10 4,7-dimethyl-4,7-epoxy-1H-isoindole-1,3(2H)-dione;

(3 α ,4 β ,7 β ,7 α)-2-[4-Cyano-3-(trifluoromethyl)phenyl]octahydro-1,3-dioxo-7-[2-(phenylmethoxy)ethyl]-4,7-epoxy-4H-isoindole-4-propanenitrile;

(3 α ,4 β ,7 β ,7 α)-2-[4-Cyano-3-(trifluoromethyl)phenyl]octahydro-1,3-dioxo-7-[2-(phenylmethoxy)ethyl]-4,7-epoxy-4H-isoindole-4-propanenitrile;

15 (3 α ,4 β ,7 β ,7 α)-4-[7-[2-(4-Cyanophenoxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aS-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-(1,3-Benzodioxol-5-yloxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

20 [3aR-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-(1,3-Benzodioxol-5-yloxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aS-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-[(5-Chloro-2-pyridinyl)oxy]ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

25 [3aR-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-[(5-Chloro-2-pyridinyl)oxy]ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aS-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-(4-Chlorophenoxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

30

[3aR-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-(4-Chlorophenoxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aS-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-(4-Acetylphenoxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

5 [3aR-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-(4-Acetylphenoxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aS-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-(3-Cyanophenoxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aR-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-(3-Cyanophenoxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

10 [3aS-(3 α ,4 β ,7 β ,7 α)]-4-[Octahydro-5-hydroxy-4-methyl-1,3-dioxo-7-[2-[(5,6,7,8-tetrahydro-1-naphthalenyl)oxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aR-(3 α ,4 β ,7 β ,7 α)]-4-[Octahydro-5-hydroxy-4-methyl-1,3-dioxo-7-[2-

15 [(5,6,7,8-tetrahydro-1-naphthalenyl)oxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aS-(3 α ,4 β ,7 β ,7 α)]-4-[Octahydro-5-hydroxy-4-methyl-1,3-dioxo-7-[2-[(5,6,7,8-tetrahydro-5-oxo-1-naphthalenyl)oxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

20 [3aR-(3 α ,4 β ,7 β ,7 α)]-4-[Octahydro-5-hydroxy-4-methyl-1,3-dioxo-7-[2-[(5,6,7,8-tetrahydro-5-oxo-1-naphthalenyl)oxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aS-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-(4-Fluorophenoxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

25 [3aR-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-(4-Fluorophenoxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aS-(3 α ,4 β ,7 β ,7 α)]-4-[Octahydro-5-hydroxy-4-methyl-7-[2-[(4-methyl-2-oxo-2H-1-benzopyran-7-yl)oxy]ethyl]-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aR-(3 α ,4 β ,7 β ,7 α)]-4-[Octahydro-5-hydroxy-4-methyl-7-[2-[(4-methyl-2-oxo-2H-1-benzopyran-7-yl)oxy]ethyl]-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenenecarbonitrile;

[3aS-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-(3,5-Dimethoxyphenoxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-

5 hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenenecarbonitrile;

[3aR-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-(3,5-Dimethoxyphenoxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenenecarbonitrile;

10 [3aR-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-(4-Chloro-3-methylphenoxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenenecarbonitrile;

[3aR-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-(4-Cyano-2,3-difluorophenoxy)ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-

15 naphthalenenecarbonitrile;

[3aS-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-[(5-Chloro-1,2-benzisoxazol-3-yl)oxy]ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenenecarbonitrile;

[3aR-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-[(5-Chloro-1,2-benzisoxazol-3-yl)oxy]ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenenecarbonitrile;

20 [3aR-(3 α ,4 β ,7 β ,7 α)]-3-[2-(4-Cyano-1-naphthalenyl)octahydro-6-hydroxy-7-methyl-1,3-dioxo-4,7-epoxy-4H-isoindol-4-yl]ethoxy]-5-isoxazolecarboxylic acid, methyl ester;

25 [3aR-(3 α ,4 β ,7 β ,7 α)]-4-[Octahydro-5-hydroxy-4-methyl-1,3-dioxo-7-[2-[4-(1H-1,2,4-triazol-1-yl)phenoxy]ethyl]-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenenecarbonitrile;

[3aS-(3 α ,4 β ,7 β ,7 α)]-4-[7-[2-[(7-Chloro-4-quinolinyl)oxy]ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-

30 naphthalenenecarbonitrile, trifluoroacetate;

[3aR-(3 α ,4 β ,7 β ,7a α)]-4-[7-[2-[(7-Chloro-4-quinolinyl)oxy]ethyl]octahydro-5-hydroxy-4-methyl-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile, trifluoroacetate;

(1a α ,2 β ,2a α ,5a α ,6b β b,6a α)-4-[2-[2-[(1,1-dimethylethyl)-dimethylsilyl]oxy]ethyl]octahydro-6-methyl-3,5-dioxo-2,6-epoxy-4H-oxireno[β]isoindol-4-yl]-1-naphthalenecarbonitrile;

[3aR-(3 α ,4 β ,7 β ,7a α)]-4-[4-Ethyoctahydro-7-(2-hydroxyethyl)-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

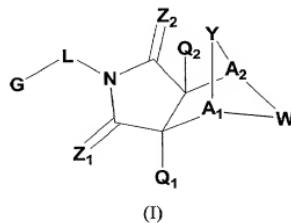
[3aS-(3 α ,4 β ,7 β ,7a α)]-4-[4-Ethyoctahydro-7-(2-hydroxyethyl)-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile;

[3aR-(3 α ,4 β ,7 β ,7a α)]-4-[4-[2-(4-Cyanophenoxy)ethyl]-7-ethyoctahydro-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile; and

[3aS-(3 α ,4 β ,7 β ,7a α)]-4-[4-[2-(4-Cyanophenoxy)ethyl]-7-ethyoctahydro-1,3-dioxo-4,7-epoxy-2H-isoindol-2-yl]-1-naphthalenecarbonitrile.

15

5. A pharmaceutical composition capable of treating a NHR - associated condition, comprising a compound of the following formula I or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier:



20

(I)

wherein the symbols have the following meanings and are, for each occurrence, independently selected:

25 G is an aryl or heterocyclo group, where said group is mono- or polycyclic, and which is optionally substituted at one or more positions;

Z_1 is O, S, NH, or NR⁶;

Z_2 is O, S, NH, or NR⁶;

A_1 is CR⁷ or N;

A_2 is CR⁷ or N;

5 Y is J-J" where J is (CR⁷R⁷)n and n = 0-3, J' is a bond or O, S, S=O, SO₂, NH, NR⁷, C=O, OC=O, NR¹C=O, CR⁷R⁷, C=CR⁸R⁸, R²P=O, R²P=S, R²OP=O, R²NHP=O, OP=OOR², OP=ONHR², OP=OR², OSO₂, C=NR⁷, NHNH, NHNR⁶, NR⁶NH, N=N, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo or aryl or substituted aryl, and J" is (CR⁷R⁷)n and n = 0-3, where Y is not a bond;

10 W is CR⁷R⁷—CR⁷R⁷, CR⁸=CR⁸, CR⁷R⁷—C=O, NR⁹—CR⁷R⁷, N=CR⁸, N=N, NR⁹—NR⁹, S—CR⁷R⁷, SO—CR⁷R⁷, SO₂—CR⁷R⁷, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, or aryl or substituted aryl, wherein when W is not substituted heterocyclo, or aryl or substituted aryl, 15 NR⁹—CR⁷R⁷, N=CR⁸, N=N, NR⁹—NR⁹, S—CR⁷R⁷, SO—CR⁷R⁷, SO₂—CR⁷R⁷, or heterocyclo or substituted heterocyclo, then J' must be O, S, S=O, SO₂, NH, NR⁷, OC=O, NR¹C=O, OP=OOR², OP=ONHR², OSO₂, NHNH, NHNR⁶, NR⁶NH, or N=N;

15 Q₁ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo or substituted heterocyclo, halo, CN, R¹OC=O, R⁴C=O, R⁵R⁶NC=O, HOCR⁷R⁷, nitro, R¹OCH₂, R¹O, NH₂, C=OSR¹, SO₂R¹ or NR⁴R⁵;

20 Q₂ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo or substituted heterocyclo, halo, CN, R¹OC=O, R⁴C=O, R⁵R⁶NC=O,

25 HOCR⁷R⁷, nitro, R¹OCH₂, R¹O, NH₂, C=OSR¹, SO₂R¹ or NR⁴R⁵;

30 HOCR⁷R⁷, nitro, R¹OCH₂, R¹O, NH₂, C=OSR¹, SO₂R¹ or NR⁴R⁵;

L is a bond, $(CR^7R^7')_n$, NH, NR^5 , $NH(CR^7R^7')_n$ or $NR^5(CR^7R^7')_n$, where $n = 0-3$;

R¹ and R^{1'} are each independently H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

5 R² is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo,

10 cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

15 R³ and R^{3'} are each independently H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, hydroxylamine, hydroxamide, alkoxy or substituted alkoxy, amino, NR^1R^2 , thiol, alkylthio or substituted alkylthio;

20 R⁴ is H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, $R^1C=O$, $R^1NHC=O$,

25 SO_2OR^1 , or $SO_2NR^1R^1'$;

30 R⁵ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, $R^1C=O$, $R^1NHC=O$, SO_2R^1 , SO_2OR^1 , or $SO_2NR^1R^1'$;

R⁶ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo,

cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or

5 substituted aryl, arylalkyl or substituted arylalkyl, CN, OH, OR¹, R¹C=O, R¹NHC=O, SO₂R¹, SO₂OR¹, or SO₂NR¹R¹;

R⁷ and R^{7'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted

cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted

10 cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, OR¹, nitro, hydroxylamine, hydroxylamide, amino, NHR⁴, NR²R⁵, NOR¹, thiol, alkylthio or substituted alkylthio, R¹C=O, R¹OC=O, R¹NHC=O, SO₂R¹, SOR¹,

15 PO₃R¹R¹, R¹R¹NC=O, C=OSR¹, SO₂R¹, SO₂OR¹, or SO₂NR¹R¹, or, wherein A₁, or A₂ contains a group R⁷ and W contains a group R⁷, said R⁷ groups of A₁ or A₂ and W together form a heterocyclic ring;

R⁸ and R^{8'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted

20 cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, nitro, halo, CN, OR¹, amino, NHR⁴, NR²R⁵, NOR¹, alkylthio or substituted alkylthio, C=OSR¹, R¹OC=O, R¹C=O,

25 R¹NHC=O, R¹R¹NC=O, SO₂OR¹, S=OR¹, SO₂R¹, PO₃R¹R¹, or SO₂NR¹R¹; and

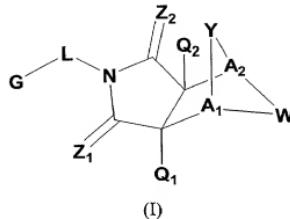
R⁹ and R^{9'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or

30 substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or

substituted aryl, arylalkyl or substituted arylalkyl, CN, OH, OR¹, R¹C=O, R¹OC=O, R¹NHC=O, SO₂R¹, SO₂OR¹, or SO₂NR¹R¹.

6. A pharmaceutical composition of Claim 5 further comprising another
5 anti-cancer agent.

7. A method of modulating the function of a nuclear hormone receptor
which comprises administering to a mammalian species in need thereof an effective
nuclear hormone receptor modulating amount of a compound of the following
10 formula I:



15 wherein the symbols have the following meanings and are, for each occurrence,
independently selected:

G is an aryl or heterocyclo group, where said group is mono- or polycyclic, and which
is optionally substituted at one or more positions;

Z₁ is O, S, NH, or NR⁶;

20 Z₂ is O, S, NH, or NR⁶;

A₁ is CR⁷ or N;

A₂ is CR⁷ or N;

Y is J-J' where J is (CR⁷R⁷)ⁿ and n = 0-3, J' is a bond or O, S, S=O, SO₂, NH,

NR⁷, C=O, OC=O, NR¹C=O, CR⁷R⁷, C=CR⁸R⁸, R²P=O, R²P=S, R²OP=O,

25 R²NHP=O, OP=OOR², OP=ONHR², OP=OR², OSO₂, C=NR⁷, NHNH,
NHNR⁶, NR⁶NH, N=N, cycloalkyl or substituted cycloalkyl, cycloalkenyl or

substituted cycloalkenyl, heterocyclo or substituted heterocyclo or aryl or substituted aryl, and J' is $(CR^7R^7)^n$ and $n = 0-3$, where Y is not a bond; W is $CR^7R^7—CR^7R^7$, $CR^8=CR^8$, $CR^7R^7—C=O$, $NR^9—CR^7R^7$, $N=CR^8$, $N=N$, $NR^9—NR^9$, $S—CR^7R^7$, $SO—CR^7R^7$, $SO_2—CR^7R^7$, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, or aryl or substituted aryl, wherein when W is not $NR^9—CR^7R^7$, $N=CR^8$, $N=N$, $NR^9—NR^9$, $S—CR^7R^7$, $SO—CR^7R^7$, $SO_2—CR^7R^7$, or heterocyclo or substituted heterocyclo, then J' must be O , S , $S=O$, SO_2 , NH , NR^7 , $OC=O$, $NR^1C=O$, $OP=OOR^2$, $OP=ONHR^2$, OSO_2 , $NHNH$, $NHNR^6$, NR^6NH , or $N=N$;

Q_1 is H , alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo or substituted heterocyclo, halo, CN , $R^1OC=O$, $R^4C=O$, $R^5R^6NC=O$, $HOCR^7R^7$, nitro, R^1OCH_2 , R^1O , NH_2 , $C=OSR^1$, SO_2R^1 or NR^4R^5 ;

Q_2 is H , alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo or substituted heterocyclo, halo, CN , $R^1OC=O$, $R^4C=O$, $R^5R^6NC=O$, $HOCR^7R^7$, nitro, R^1OCH_2 , R^1O , NH_2 , $C=OSR^1$, SO_2R^1 or NR^4R^5 ;

L is a bond, $(CR^7R^7)^n$, NH , NR^5 , $NH(CR^7R^7)^n$ or $NR^5(CR^7R^7)^n$, where $n = 0-3$;

R^1 and R^1' are each independently H , alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

R² is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo,

cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or

5 substituted aryl, arylalkyl or substituted arylalkyl;

R³ and R^{3'} are each independently H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl,

cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or

10 substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, hydroxylamine, hydroxamide, alkoxy or substituted alkoxy, amino, NR¹R², thiol, alkylthio or substituted alkylthio;

R⁴ is H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo,

15 cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, R¹C=O, R¹NHC=O, SO₂OR¹, or SO₂NR¹R^{1'};

R⁵ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or

20 substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, R¹C=O, R¹NHC=O, SO₂R¹, SO₂OR¹, or SO₂NR¹R^{1'};

25 R⁶ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, CN, OH, OR¹, R¹C=O, R¹NHC=O, SO₂R¹, SO₂OR¹, or SO₂NR¹R^{1'};

R⁷ and R^{7'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted

5 cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, OR¹, nitro, hydroxylamine, hydroxylamide, amino, NHR⁴, NR²R⁵, NOR¹, thiol, alkylthio or substituted alkylthio, R¹C=O, R¹OC=O, R¹NHC=O, SO₂R¹, SOR¹, PO₃R¹R^{1'}, R¹R^{1'}NC=O, C=OSR¹, SO₂R¹, SO₂OR¹, or SO₂NR¹R^{1'}, or, wherein 10 A₁ or A₂ contains a group R⁷ and W contains a group R⁷, said R⁷ groups of A₁ or A₂ and W together form a heterocyclic ring;

15 R⁸ and R^{8'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, nitro, halo, CN, OR¹, amino, NHR⁴, NR²R⁵, NOR¹, alkylthio or substituted alkylthio, C=OSR¹, R¹OC=O, R¹C=O, R¹NHC=O, R¹R^{1'}NC=O, SO₂OR¹, S=OR¹, SO₂R¹, PO₃R¹R^{1'}, or SO₂NR¹R^{1'};

20 and

25 R⁹ and R^{9'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, CN, OH, OR¹, R¹C=O, R¹OC=O, R¹NHC=O, SO₂R¹, SO₂OR¹, or SO₂NR¹R^{1'}.

30 8. The method of Claim 7 wherein said nuclear hormone receptor is a steroid binding nuclear hormone receptor.

9. The method of Claim 7 wherein said nuclear hormone receptor is the androgen receptor.

10. The method of Claim 7 wherein said nuclear hormone receptor is the 5 estrogen receptor.

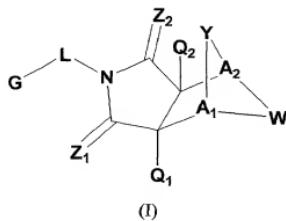
11. The method of Claim 7 wherein said nuclear hormone receptor is the progesterone receptor.

10 12. The method of Claim 7 wherein said nuclear hormone receptor is the glucocorticoid receptor.

13. The method of Claim 7 wherein said nuclear hormone receptor is the mineralocorticoid receptor.

15 14. The method of Claim 7 wherein said nuclear hormone receptor is the aldosterone receptor.

15. A method for treating a condition or disorder comprising administering 20 to a mammalian species in need thereof a therapeutically effective amount of a compound of the following formula:



wherein the symbols have the following meanings and are, for each occurrence, independently selected:

G is an aryl or heterocyclo group, where said group is mono- or polycyclic, and which is optionally substituted at one or more positions;

5 Z₁ is O, S, NH, or NR⁶;

Z₂ is O, S, NH, or NR⁶;

A₁ is CR⁷ or N;

A₂ is CR⁷ or N;

Y is J-J' where J is (CR⁷R')ⁿ and n = 0-3, J' is a bond or O, S, S=O, SO₂, NH,

10 NR⁷, C=O, OC=O, NR¹C=O, CR⁷R', C=CR⁸R', R²P=O, R²P=S, R²OP=O, R²NHP=O, OP=OOR², OP=ONHR², OP=OR², OSO₂, C=NR⁷, NHNH, NHNR⁶, NR⁶NH, N=N, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo or aryl or substituted aryl, and J' is (CR⁷R')ⁿ and n = 0-3, where Y is not a bond;

15 W is CR⁷R'—CR⁷R', CR⁸=CR⁸, CR⁷R'—C=O, NR⁹—CR⁷R', N=CR⁸, N=N, NR⁹—NR⁹, S—CR⁷R', SO—CR⁷R', SO₂—CR⁷R', cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, or aryl or substituted aryl, wherein when W is not NR⁹—CR⁷R', N=CR⁸, N=N, NR⁹—NR⁹, S—CR⁷R', SO—CR⁷R', SO₂—CR⁷R', or heterocyclo or substituted heterocyclo, then J' must be O, S, S=O, SO₂, NH, NR⁷, OC=O, NR¹C=O, OP=OOR², OP=ONHR², OSO₂, NHNH, NHNR⁶, NR⁶NH, or N=N;

Q₁ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl,

25 heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo or substituted heterocyclo, halo, CN, R¹OC=O, R⁴C=O, R⁵R⁶NC=O, HOCR⁷R', nitro, R¹OCH₂, R¹O, NH₂, C=OSR¹, SO₂R¹ or NR⁴R⁵;

Q₂ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl,

30

heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo or substituted heterocyclo, halo, CN, $R^1OC=O$, $R^4C=O$, $R^3R^6NC=O$, $HOCR^7R^7$, nitro, R^1OCH_2 , R^1O , NH₂, C=OSR¹, SO₂R¹ or NR⁴R⁵;

5 L is a bond, $(CR^7R^7)n$, NH, NR⁵, NH $(CR^7R^7)n$ or NR⁵ $(CR^7R^7)n$, where n = 0-3; R¹ and R^{1'} are each independently H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

10 R² is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

15 R³ and R^{3'} are each independently H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

20 R⁴ is H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, R^{1'C=O, R^{1'NHC=O, SO₂OR¹, or SO₂NR^{1'R^{1'};}}}

25 R⁵ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo,

30 R⁵ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo,

cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, $R^1C=O$, $R^1NHC=O$, SO_2R^1 , SO_2OR^1 , or $SO_2NR^1R^1$;

5 R^6 is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, CN , OH , OR^1 , $R^1C=O$, $R^1NHC=O$, SO_2R^1 , SO_2OR^1 , or $SO_2NR^1R^1$;

10 R^7 and R^7' are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN , OR^1 , nitro, hydroxylamine, hydroxylamide, amino, NHR^4 , NR^2R^5 , NOR^1 , thiol, alkylthio or substituted alkylthio, $R^1C=O$, $R^1OC=O$, $R^1NHC=O$, SO_2R^1 , SOR^1 , $PO_3R^1R^1'$, $R^1R^1'NC=O$, $C=OSR^1$, SO_2R^1 , SO_2OR^1 , or $SO_2NR^1R^1'$, or, wherein

15 A_1 or A_2 contains a group R^7 and W contains a group R^7' , said R^7 groups of A_1 or A_2 and W together form a heterocyclic ring;

20 R^8 and R^8' are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, nitro, halo, CN , OR^1 , amino, NHR^4 , NR^2R^5 , NOR^1 , alkylthio or substituted alkylthio, $C=OSR^1$, $R^1OC=O$, $R^1C=O$, $R^1NHC=O$, $R^1R^1'NC=O$, SO_2OR^1 , $S=OR^1$, SO_2R^1 , $PO_3R^1R^1'$, or $SO_2NR^1R^1'$;

25 and

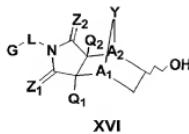
R⁹ and R^{9'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted

5 cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, CN, OH, OR¹, R¹C=O, R¹OC=O, R¹NHC=O, SO₂R¹, SO₂OR¹, or SO₂NR¹R^{1'};

10 wherein said condition or disorder is selected from the group consisting of proliferate diseases, cancers, benign prostate hypertrophia, adenomas and neoplasies of the prostate, benign or malignant tumor cells containing the androgen receptor, heart disease, angiogenic conditions or disorders, hirsutism, acne, hyperpilosity, inflammation, immune modulation, seborrhea, endometriosis, polycystic ovary syndrome, androgenic alopecia, hypogonadism, osteoporosis, suppressing spermatogenesis, libido, cachexia, anorexia, inhibition of muscular atrophy in ambulatory patients, androgen supplementation for age related decreased testosterone levels in men, cancers expressing the estrogen receptor, prostate cancer, breast cancer, endometrial cancer, hot flushes, vaginal dryness, menopause, amenorrhea, dysmenorrhea, contraception, pregnancy termination, cancers containing the progesterone receptor, 15 endometriosis, cachexia, menopause, cyclesynchrony, meniginoma, fibroids, labor induction, autoimmune diseases, Alzheimer's disease, psychotic disorders, drug dependence, non-insulin dependent Diabetes Mellitus, dopamine receptor mediated disorders, congestive heart failure, disregulation of cholesterol homeostasis, and attenuating the metabolism of a 20 pharmaceutical agent.

25

16. A method for preparation of a compound of the following formula XVI, or salt thereof:



XVI

where

G is an aryl or heterocyclo group, where said group is mono- or polycyclic, and which

5 is optionally substituted at one or more positions;

Z₁ is O, S, NH, or NR⁶;

Z₂ is O, S, NH, or NR⁶;

A₁ is CR⁷ or N;

A₂ is CR⁷ or N;

10 Y' is J-J' where J is (CR⁷R⁷)_n and n = 0-3, J' is O, S, S=O, SO₂, NH, NR⁷,

OP=OOR², OC=O, NR¹C=O, OP=ONHR², OSO₂, NHHN, NHNR⁶, NR⁶NH,
or N=N, and J' is (CR⁷R⁷)_n and n = 0-3;

Q₁ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or
substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl,

15 heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted
arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo
or substituted heterocyclo, halo, CN, R¹OC=O, R⁴C=O, R⁵R⁶NC=O,
HOCR⁷R⁷, nitro, R¹OCH₂, R¹O, NH₂, C=OSR¹, SO₂R¹ or NR⁴R⁵;

Q₂ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or

20 substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl,
heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted
arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo
or substituted heterocyclo, halo, CN, R¹OC=O, R⁴C=O, R⁵R⁶NC=O,
HOCHR⁷R⁷, nitro, R¹OCH₂, R¹O, NH₂, C=OSR¹, SO₂R¹ or NR⁴R⁵;

25 L is a bond, (CR⁷R⁷)_n, NH, NR⁸ or NR⁸(CR⁷R⁷)_n, where n = 0-3;

R¹ and R¹' are each independently H, alkyl or substituted alkyl, cycloalkyl or
substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo
or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl,

cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

5 R² is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

10 R⁴ is H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, R¹C=O, R¹NHC=O, SO₂OR¹, or SO₂NR¹R¹;

15 R⁵ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, R¹C=O, R¹NHC=O, SO₂R¹, SO₂OR¹, or SO₂NR¹R¹;

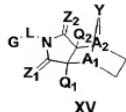
20 R⁶ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, CN, OH, OR¹, R¹C=O, R¹NHC=O, SO₂R¹, SO₂OR¹, or SO₂NR¹R¹; and

25 R⁷ and R⁷' are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or

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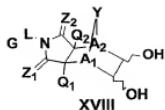
substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, OR¹, nitro, hydroxylamine, hydroxylamide, amino, NHR⁴, NR²R⁵, NOR¹, thiol, alkylthio or substituted alkylthio, R¹C=O, R¹OC=O, R¹NHC=O, SO₂R¹, SOR¹, PO₃R¹R¹, R¹R¹NC=O, C=OSR¹, SO₂R¹, SO₂OR¹, or SO₂NR¹R¹;

5 comprising the steps of contacting a compound of the following formula XV, or salt thereof:



10 where the symbols are as defined above;
with an enzyme or microorganism capable of catalyzing the hydroxylation of said compound XV to said compound XVI, and effecting said hydroxylation.

17. A method for preparation of a compound of the following formula
15 XVIII, or salt thereof:



where
20 G is an aryl or heterocyclo group, where said group is mono- or polycyclic, and which
is optionally substituted at one or more positions;
Z₁ is O, S, NH, or NR⁶;
Z₂ is O, S, NH, or NR⁶;
A₁ is CR⁷ or N;
25 A₂ is CR⁷ or N;
Y' is J-J'-J" where J is (CR⁷R⁷)ⁿ and n = 0-3, J' is O, S, S=O, SO₂, NH, NR⁷,
OP=OOR², OC=O, NR¹C=O, OP=ONHR², OSO₂, NHNH, NHNR⁶, NR⁶NH,
or N=N, and J" is (CR⁷R⁷)ⁿ and n = 0-3;

Q₁ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl,

heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo

5 or substituted heterocyclo, halo, CN, R¹OC=O, R⁴C=O, R⁵R⁶NC=O, HOCR⁷R⁷, nitro, R¹OCH₂, R¹O, NH₂, C=OSR¹, SO₂R¹ or NR⁴R⁵;

Q₂ is H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl,

heterocycloalkyl or substituted heterocycloalkyl, arylalkyl or substituted arylalkyl, alkynyl or substituted alkynyl, aryl or substituted aryl, heterocyclo

10 or substituted heterocyclo, halo, CN, R¹OC=O, R⁴C=O, R⁵R⁶NC=O, HOCR⁷R⁷, nitro, R¹OCH₂, R¹O, NH₂, C=OSR¹, SO₂R¹ or NR⁴R⁵;

L is a bond, (CR⁷R⁷)_n, NH, NR⁵ or NR⁵(CR⁷R⁷)_n, where n = 0-3;

R¹ and R^{1'} are each independently H, alkyl or substituted alkyl, cycloalkyl or

15 substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

20 R² is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl;

25 R⁴ is H, alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, R¹C=O, R¹NHC=O,

30 SO₂OR¹, or SO₂NR¹R^{1'};

R⁵ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo,

cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or

5 substituted aryl, arylalkyl or substituted arylalkyl, R¹C=O, R¹NHC=O, SO₂R¹, SO₂OR¹, or SO₂NR¹R¹;

R⁶ is alkyl or substituted alkyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, heterocyclo or substituted heterocyclo,

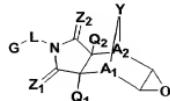
cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or

10 substituted aryl, arylalkyl or substituted arylalkyl, CN, OH, OR¹, R¹C=O, R¹NHC=O, SO₂R¹, SO₂OR¹, or SO₂NR¹R¹; and

R⁷ and R^{7'} are each independently H, alkyl or substituted alkyl, alkenyl or substituted alkenyl, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted

15 cycloalkenyl, heterocyclo or substituted heterocyclo, cycloalkylalkyl or substituted cycloalkylalkyl, cycloalkenylalkyl or substituted cycloalkenylalkyl, heterocycloalkyl or substituted heterocycloalkyl, aryl or substituted aryl, arylalkyl or substituted arylalkyl, halo, CN, OR¹, nitro, hydroxylamine, hydroxylamide, amino, NHR⁴, NR²R⁵, NOR¹, thiol, alkylthio or substituted alkylthio, R¹C=O, R¹OC=O, R¹NHC=O, SO₂R¹, SOR¹, PO₃R¹R¹, R¹R¹NC=O, C=OSR¹, SO₂R¹, SO₂OR¹, or SO₂NR¹R¹;

comprising the steps of contacting a compound of the following formula XVII, or salt thereof:

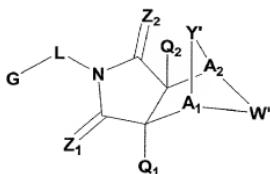


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where the symbols are as defined above;

with an enzyme or microorganism capable of catalyzing the opening of the epoxide ring of compound XVII to form the diol of said compound XVIII, and effecting said ring opening and diol formation.

18. A compound of the following formula Ib:



5

Ib

where G, Z₁, Z₂, Q₁ and Q₂ are as defined in claim 1;

Y' is J-J'-J" where J is (CR⁷R')ⁿ and n = 0-3, J' is a bond or O, S, S=O, SO₂, NH,

10 NR⁷, CR⁷R', R²P=O, R²P=S, R²OP=O, R²NHP=O, OP=OOR², OP=ONHR², OSO₂, NHNH, NHNR⁶, NR⁶NH, N=N, cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl, or heterocyclo or substituted heterocyclo, and J" is (CR⁷R')ⁿ and n = 0-3, where Y is not a bond; and

W' is CR⁷R'—CR⁷R', CR⁷R'—C=O, NR⁹—CR⁷R', N=CR⁸, N=N, NR⁹—NR⁹', cycloalkyl or substituted cycloalkyl, cycloalkenyl or substituted cycloalkenyl,

15 heterocyclo or substituted heterocyclo, or aryl or substituted aryl, wherein, when W' is not NR⁹—CR⁷R', N=CR⁸, N=N, NR⁹—NR⁹', or heterocyclo or substituted heterocyclo, then J' must be O, S, S=O, SO₂, NH, NR⁷, OP=OOR², OP=ONHR², OSO₂, NHNH, NHNR⁶, NR⁶NH, or N=N; or alternatively,

Y' is CR⁷R'—C=O and W' is NR⁹-CR⁷R';

20 L is a bond; and

A₁ and A₂ are as defined above with the proviso that, when Y' = O and W' = -CH₂-CH₂-, then at least one of A₁ or A₂ is not CH;

with the further provisos (2), (3), (6), (7) and (8) of claim 1.